

# **Economic Development Taskforce Presentation to Mayor Bill White**

# **Mayor's Taskforce on Economic Development: Executive Summary**

June 15, 2004

# Mayor William H. White's Economic Development Taskforce Final Report June 15, 2004

## I. EXECUTIVE SUMMARY

- **Objective** – The Economic Development Taskforce (EDTF) was formed by Mayor Bill White in January, 2004, to recommend steps that could be taken to increase the community's effectiveness in the area of economic development.
- **Participants** – The individuals listed in Attachment A participated in the work of the EDTF. The Chair wishes to express particular appreciation to all of these participants who gave so unselfishly of their time, experience and good judgment.
- **Definition** – The EDTF elected to focus its attention on proactive steps that could be taken to create, attract, and protect primary jobs in our community by encouraging the relocation and expansion of corporate activities not currently in the Houston area, supporting the creation of new commercial enterprises in fields that are complementary to Houston's resources and supporting the growth of businesses already existing in the area. In doing so the EDTF elected not to address the areas of education, infrastructure, community redevelopment or general image. These issues are crucial to successful economic development, but are being addressed by other entities.
- **Observations** – The Houston community, both public and private, has reduced its focus on economic development over the past decade. Fewer resources are being devoted to the subject, and fewer top leaders in the public and business sectors are active in these efforts. Many other communities have experienced similar lack of engagement on economic development during the economic boom of the 90's. However, current challenges in economic/job growth have put economic development into the forefront once again. In order to address economic development effectively, the Houston community would only have to increase the total of its public and private economic development expenditures by \$1.5 – 2.0 million to restore its competitiveness. These increases are detailed on Attachment B.
- **Recommendations** – While individual taskforce subgroups (TFSG) have specific recommendations contained in the sections that follow, these TFSGs, working independently, produced a surprising number of overlapping recommendations that may be summarized as follows:
  - Create a public/private Economic Development Strategy Council including the Mayor, County Judge, Greater Houston Partnership Chairman and business/community leaders to coordinate the community's economic development strategy.
  - Reconcile differences between City of Houston and Harris County's evaluation of the economic benefit of business expansions and relocations.
  - Create a Director of Economic Development in the City of Houston to coordinate all of the City's economic development activities. A position description for this Director is included as Attachment C.
  - Change the community's current dependence on tax abatements as a tool of economic development to a more flexible enterprise fund approach that would allow financial incentives to be tailored to intellectual property industries as well as fixed asset industries.
  - Facilitate the increase of venture capital funds for Houston based technology businesses by dedicating small portions of public pension plans, foundations and other existing funds to "Parallel VC Funds" that would piggyback on private sector VC investment decisions in such developing businesses.
  - Assign private sector business advocacy groups the responsibility to develop and implement coordinated marketing plans for the targeted industry clusters of Biotechnology, Information Technology, Aerospace and Energy.
  - Convene representatives of all organizations marketing Houston including City of Houston, Harris County, Greater Houston Convention and Visitors Bureau, Port of Houston, Department of

Aviation, Greater Houston Partnership and others to develop a common "marketing theme" that would be common to all pro-active marketing efforts on behalf of the city.

## II. OVERVIEW AND EXISTING PROGRAMS

### A. DEFINITION OF ECONOMIC DEVELOPMENT

The Mayor's Economic Development Taskforce (EDTF) recognizes that the term "economic development" can have a variety of meanings and scopes. For the purpose of the TF's work the following is stipulated:

- All elements of a community's environment and systems affect economic development. Previous experience, as well as work done by the EDTF, continues to reflect that the quality of education in the community from Pre-K to Post Doctoral may indeed be the single most important factor in a community's ability to develop a diverse and vibrant economy. In addition such factors as transportation systems, air quality, geographic location and political environment are also important factors that affect this area. However, the EDTF did not include these areas in its purview as they were either too broad, the subject of other efforts or beyond our ability to change or affect.
- The redevelopment of targeted economically depressed areas in our community (community development), and support for service or "secondary" businesses can be a part of an overall economic development plan. The EDTF, however, chose to focus solely on activities that would add or retain "primary" jobs to the community. For this purpose, "primary" jobs are defined as those creating a product or service sold outside of our eight count (?) statistical area and thus bringing new wealth into the community.
- The "image" of the community to the broad spectrum of national and international audiences is of constant concern to the community, and it has been particularly so to Houston since 1985. Because this issue of creating a common image of Houston for general audiences affects so many areas such as economic development, tourism, conventions and employee recruitment, the EDTF is recommending a separate group take on the responsibility of considering the potential costs and benefits of a specific marketing and communication plan to address this issue.
- The EDTF focused its attention on the actions necessary to improve the community's efforts to create and protect primary jobs in our community by encouraging the relocation and expansion of corporate activities not currently in the Houston area, supporting the creation of new commercial enterprises in fields that are complementary to Houston's resources and supporting the growth of businesses already existing in the area.

### B. TASKFORCE ORGANIZATION

- The EDTF chose to address these necessary actions through the work of seven (7) Taskforce Subgroups (TFSG). These TFSGs were organized as follows:
  - Energy, Chemicals & Supporting Service Organizations
  - Biotechnology
  - Information Technology
  - Aerospace & Aviation
  - Existing & Emerging Small Business
  - Latin American Investment & Trade
  - Existing Programs & Financial Incentives
- The first four of these TFSGs are based on industry groups that have a demonstrated potential for significantly affecting the growth and protection of primary jobs in the Houston area. They follow the classic economic development model of focusing on "clusters" of activities uniquely suited to our community. The final three TFSGs address broad groupings of industries with common issues (Latin America and Existing Business) or policies that impact the programs of the first six (Programs and Financial Incentives).
- Each of the first four of the TFSGs was charged with producing three deliverables:

1. Quantify the potential primary jobs that could be created in each "cluster" through the application of increased proactive and reactive marketing and sales initiatives over a five year time horizon.
2. Provide recommended actions and associated costs to realize the potential quantified in item 1.
3. Identify actions that the Mayor and City of Houston should take in support of the recommendations included in item 2.

The unique nature of the final three TFSGs is such that their deliverables consists of specific findings and recommendations resulting from their structured reviews and research.

In all seven of the TFSGs, the work was enormously enhanced and supported by the work of McKinsey & Company who volunteered to share their non-proprietary results from similar studies for other metropolitan communities. McKinsey also worked extensively with the TFSGs and the overall EDTF to develop a template that permits the work of each TFSG to be presented in a way that facilitates comparison of their work and recommendations.

## C. ORGANIZATION OF ECONOMIC DEVELOPMENT

- Over the past decade the economic developments efforts of the Greater Houston Community have been deemphasized as more attention has been paid to such issues as transportation, air quality, tort reform and education. This reduction in emphasis is illustrated in the reduced budget of the GHP dedicated to economic development, the elimination of specific responsibility for this function at the City of Houston, and the poor showing of Houston compared to other major cities in Texas and elsewhere in the area of major corporate relocations and expansions. At the present time less than 10% of the corporations considering a relocation or expansion in Texas are considering the Houston area. A significant refocusing of community efforts will be needed to recapture the momentum that we had from 1988 to 1995.
- Designing an optimum comprehensive economic development system from a clean sheet of paper would include assigning specific responsibilities to both public and private sectors of our community. These responsibilities would include:
  - Creating a public/private Strategy Council that would include the Mayor, County Judge, GHP Chairman and other community leaders to approve on an annual basis the overall economic development strategy for the community. **This group would convene regularly, with a specific agenda and assignments to ensure impact. Membership and participation would be driven by the agenda. The group would have permanent members to ensure continuity but would also leverage appropriate expertise depending on the current focus of the economic development agenda. As a starting group, representatives from the following four sectors should be included: energy, chemicals, and supporting services; biotechnology; information technology and aerospace and aviation.** The group would consider elements including infrastructure improvements, educational enhancements, image positioning, financial incentives and the design and prioritization proactive marketing programs segmented by market clusters.
  - Designating that the City of Houston and Harris County would have responsibility for designing, promulgating and administering all local financial incentive plans targeted at economic development. Such plans should reflect the following components:
    1. A common evaluation template for all requests for financial incentives so that City and County officials would base their decisions on the same input data and economic impact information for a given request.
    2. A common set of guidelines for financial incentives so that the City and County would offer coordinated and complementary incentives
    3. A more flexible menu of incentives that would replace the current emphasis of tax abatement applied to real and personal property. The recommendations from the TFSGs reflect the need to attract a new type of commercial activity to Houston that may, in some cases, be more dependent on intellectual capital than fixed assets. In those cases, an enterprise fund for the community's economic development, similar to the Texas Enterprise Fund, may be more

appropriate. Such a fund could be funded from avoided tax abatements or other novel sources. Such novel sources could include, but not be limited to:

- a. Bond Proceeds
  - b. Gasoline Tax Refund
  - c. Increase in 8.25% sales tax limit
  - d. Capital Improvement Budget
- Encouraging the existing pension funds at the City and County to invest in emerging Houston businesses which would, in turn, increase the public funds available to support the pension fund requirements. The EDTF supports the concept of developing "Parallel Funds" whereby public pension investments would be coupled to private VC Funds investing in Biotechnology, Information Technology, Energy and Aerospace in the Houston area. All due diligence and structuring would be done by the private sector funds, with public sector funds automatically invested in qualifying investments on a pro-rata basis. Not only would such a structure benefit public employees by stimulating the growth of the economy on which their pensions are dependent, but it would also add resources to the private sector investments that would accelerate the ability of the community to become "lead investor" in these companies, and thereby dictate their location.
  - Create a Director of Economic Development for the City of Houston. This director would become the coordinator of all City economic development activities including :
    1. Administer economic development financial incentive programs
    2. Coordinate City of Houston's efforts with relocation and expansion prospects
    3. Coordinate City of Houston contracts with private sector economic development organizations
    4. Administer a City of Houston economic development "Grant Facilitation Office", as detailed in the Existing and Emerging TFSG report.
    5. Support small and medium size business programs as detailed in the Existing and Emerging TFSG report.
    6. Oversee the activities of the Houston International Initiatives program.
    7. Provide input to the Economic Development Strategic Planning Council.
  - Designate the GHP and other private business advocacy groups as the principal agencies charged with implementing the proactive marketing activities recommended by the various TFSGs. Such a designation would imply:
    1. The need for increased private funding for these activities
    2. The need for highly experienced economic development professionals working in these programs
    3. Formal relationships between the GHP and area development organizations like Bay Area Development, Ft. Bend Economic Development Council, Downtown Houston and others to leverage the capabilities and special skills of those organizations.
  - Encouragement from the Mayor (& County Judge) for a higher level of private involvement in Economic Development. The convening of a "Houston Economic Development" event, chaired by the Mayor, and including the city's leading business CEOs, in the fall of 2004 to unveil the community's new Economic Development Strategy may be needed to kick start this effort, but the continued involvement of this level of business leader must ultimately fall to the GHP and other private business advocacy organizations.

### **III. TASKFORCE SUBGROUP SUMMARIES**

While the above summarizes the recommendations that were common to all of the groups, the following are the specific recommendations that were specific to the individual industry clusters studied.

## **A. Energy, Chemicals, and Supporting Service Organizations**

1. Direct Greater Houston Partnership to develop comprehensive upstream recruitment plan for corporate headquarters (target 1 significant relocation every 24-36 months)
2. Work with local, regional, and state schools, colleges, and universities to train students in energy related skills
3. Appoint a commission of industry, academic, and government experts to address potential decline in petrochemicals, including loss of feedstock pricing advantage, environmental pressures, and health of support industries
4. Appoint an expert commission to produce blueprint to establish Houston as the energy capital of the world and the center of alternative energy development
5. Launch focused problem solving effort to increase industry activity level around start-ups

## **B. Biotechnology**

1. Chair Academic and Research Institution CEO summit to finalize nano-bio-info research and commercialization center
2. Make targeted use of city pension funds to promote technology transfer for biotech
3. Develop comprehensive marketing plan to locate divisions of pharmaceutical companies in the Houston area to establish Houston as Biotechnology's Third Coast
4. Enhance sector connectivity and coordination and encourage more consistent application of technology transfer best practices (e.g. catalyze life science OTT coordination effort, coordinate inventory of high potential technology, support cross-disciplinary review of inventory to identify potential combinations of technologies to address specific market needs)

## **C. Information Technology**

1. Coordinate efforts of local, regional and state economic development organizations and provide additional support for pursuit of federal and state funding for universities and small/medium businesses
2. Encourage local universities and donors to improve recruitment of "rock star" faculty, either by focusing on a single strong researcher or funding a set of endowed chairs
3. Create a Houston seed fund using HTC infrastructure (e.g., STARTech) that would help in growing early-stage companies to the level at which VCs can then invest
4. Celebrate/promote Houston's successful entrepreneurial stories

## **D. Aerospace and Aviation**

1. Develop a comprehensive marketing plan to promote Houston as a preferred aerospace cluster business location to aerospace executives
2. Provide specific infrastructure improvements to make Houston more attractive for aerospace and aviation investments
3. Create partnership with venture capital firms and not-for-profit groups to encourage entrepreneurship and to assist in technology transfer within and from aerospace industry
4. Facilitate effort to foster entrepreneur friendly culture at NASA (e.g. solicit agreement from NASA administration to allow VC/entrepreneur presence, catalyze design of Entrepreneur in Residence program, promote 3-5 key partnerships based on inventory of high potential technology, drive for entrepreneur leave of absence programs)

# **Mayor's Taskforce on Economic Development: Energy and Petrochemicals**

**June 15, 2004**



# **ECONOMIC DEVELOPMENT TASK FORCE ENERGY AND PETROCHEMICALS**

**June 15, 2004**

In 1920, San Antonio reigned as Texas' largest city while Houston ranked a mere third statewide. Today, Houston claims the position of the nation's fourth most populous city. The rise of Houston and much of its future are directly linked to the development and sustainability of the energy industry in Houston. The oil and gas, refining and marketing, and petrochemical industries have long been the driving forces behind both Houston's economy and its image. However, the future of Houston's economic development depends upon not only these industries but also upon developing and sustaining alternative energy sources and enabling technologies such as nanotechnology. The mayor should and must be a vital link in the evolution from Houston, the oil and gas capital of the world, to Houston, the energy capital of the world.

## **UPSTREAM**

A look at historically related employment trends in the Upstream oil and gas sector shows a forecast – 2.73% job decline over the ten-year period from 2000-2010. Yet, Houston possesses significant economic development and job growth potential in the Upstream. This untapped potential is largely due to consolidation of the oil and gas industries in Houston, the expansion of the scale of global energy projects based out of Houston, and a predicted overall upward trend in energy prices compared to historical norms. Overall upstream industry employment is declining but is being concentrated in key locations. To ensure that the industry consolidation results in corporate headquarters and related engineering and manufacturing companies being located or relocated to Houston, the mayor should direct the Greater Houston Partnership (GHP) to develop a comprehensive upstream recruitment plan to be delivered to him by September 15, 2004. Such plan should identify the (i) top 50 company recruitment targets that are not headquartered in Houston, (ii) Houston executives serving on the boards of the targeted companies, (iii) number of Houston-based employees working for the targeted companies, (iv) major Houston customer/supplier relationships with the target companies, and (v) minimum incentive plans necessary to recruit the target companies. Acquiring one major company, such as the recent Citgo Petroleum Corporation acquisition, every 24-36 months should be the goal of the plan. The Citgo acquisition yielded 4,000 direct and indirect jobs for Houston, with 750 of those jobs being primary jobs. Recruitment and action needed to attract new companies to Houston requires the support of government, as Stuart McGill of ExxonMobil Production Company states: “[T]he city leaders must emphasize the positive contribution to jobs, taxes, and infrastructure that our industry continues to play in the region. To attract new businesses it is important to demonstrate how valued their presence will be.”

In addition to bringing new upstream companies to Houston, the mayor should work with local, regional, and state schools, colleges and universities to develop and support academic and vocational programs that train students in energy related skills and build a knowledge base for Houston energy companies. In addition to jobs at local plants, higher-level skills are essential to manage outsourced and offshore operations from Houston. The mayor should consider a task force of academia, industry, and government entities to pursue this end.

## **REFINING AND MARKETING**

Refining and Marketing will continue to see a decline in jobs over the next ten years due to productivity gains from investment in plant and support infrastructures. However, the industry will remain a significant local employer. As Lynn Elsenhans of Shell Oil Company notes: “Strong refined product demand should keep US refining operating at high rates for a number of years. Due to very stringent product specifications, a relatively few offshore producers will be able to export to the US. The Gulf Coast will continue its prominence as the nation's refining center.”

## **PETROCHEMICALS**

Employment in the petrochemical industry fueled by rising demand is projected from historical trend lines to increase by 8.9% over the ten-year period from 2000-2010. However, considerable concerns exist as to these forecasts. Employment could stagnate or even decline. Such decline or stagnation may occur due to the erosion of the historic natural gas feedstock pricing advantage, environmental objectives exacerbating feedstock pressures, productivity gains affecting white-collar jobs, movement of certain white-collar jobs offshore, and minimal plant construction except for incremental expansions of existing plants, required repairs, and environmental retrofitting. Less stringent environmental standards and closer access to lower cost sources of feedstock are anticipated to drive construction of new plants overseas. In spite of the anticipated downward economic trend, the downstream sector remains an important part of the Houston economy. To proactively deal with these concerns, the mayor should appoint an expert commission of industry, academics and government to address steps to mitigate the above concerns as well as (i) the potential to modify Houston's profile as a low margin, bulk chemical producer, (ii) to ensure that process engineering and construction industries continue to reside in Houston, (iii) to ensure that the petrochemical industry remains an important industry in Houston, (iv) to identify potential companies that could relocate to or concentrate their businesses in the Houston area and provide incentives and support for any such relocations, and (v) to produce downstream industries which are globally competitive, environmentally compliant, and not dependent upon low cost feedstock for growth. The mayor should also encourage state and federal regulators to work with industry to solve environmental issues that could potentially block the growth of business in Houston, with any and all such solutions being in full compliance with all applicable environmental regulations.

## **TRANSFORMATION INTO THE ENERGY CAPITAL OF THE WORLD**

Rick Charter of ATOFINA Petrochemicals, Inc. states: "[W]e should make every effort....to transition Houston from simply the oil and gas capital to the energy capital of the world. This includes the expansion into LNG terminals/distribution and other non-conventional fossil fuel technologies as well as non-hydrocarbon energy sources such as wind, hydrogen, etc. Many of the companies involved in these efforts and their support groups are located in Houston, and we should leverage our current leadership position to broadly extend our focus to include a broader spectrum of energy sources and technology. An expanded focus on related research at state and local universities would help as well." Houston must be at the forefront of the eventual worldwide shift from fossil fuels to alternative energy. The mayor should be a key figure in promoting all energy industry events taking place in Houston, from oil and gas related events such as the Offshore Technology Conference (OTC) and the Cambridge Energy Research Associate's annual CERAWeek to alternative energy conferences and energy-related events sponsored by the Baker Institute for Public Policy and others. Developing Houston as an alternative energy center, in addition to being the oil and gas capital of the world, will promote Houston as a clean, environmentally friendly city which will serve to improve the city's image and aid in attracting talent and companies to Houston. Engendering Houston's transition from being the oil and gas capital of the world to being the energy capital of the world necessitates the formulation of a strategic plan. The mayor should appoint an expert commission to produce a blueprint by which Houston can become the alternative energy center of the world. Leadership for this effort is critical and should include industry and academic thought leaders (e.g. Dr. Richard Smalley and Michael Zilkha). The strategic plan should address how to (i) establish the materials science and engineering research capacity necessary to be the world leader in the emerging alternative energy sector, (ii) attract and develop companies working in the alternative energy sector, and (iii) transform Houston's image from being an exclusively oil and gas city to a comprehensive center for all things related to energy. As Bob Gower of Carbon Nanotechnologies, Inc. notes: "If Houston and the petrochemical industry really decide to transform the industry, it could have a dynamic effect on Houston's future. These developments are expected to take place throughout the world whether Houston and the petrochemical industry participate or not. But this could be a turning point opportunity for Houston, especially when

combined with the energy potential Rick Smalley envisions via the use of specifically designed single wall carbon nanotubes.”

## **CONCLUSION**

Houston’s future will be determined by how progressive and forward-looking its leaders are today. The mayor must work with industry, academia, and governmental entities to support the continued global leadership of Houston in the oil and gas and petrochemical sectors while concurrently leading Houston toward its alternative energy future. In the process, Houston will transition from being the oil and gas capital of the world to being the energy capital of the world.

A number of Houston-based companies provided important input into this report. Several have been referenced herein and, in addition, James Hackett of Anadarko Petroleum Corporation and Cheryl Richard of GlobalSantaFe provided valuable feedback.

<b>Exploration and Production Upstream</b>					
<b>SIC</b>		<b>Year 2000</b>	<b>Year 2010</b>	<b>Employment Change</b>	<b>10-Year Growth Rate</b>
13	Oil and Gas Extraction	66,520	61,110	-5,410	-8.10%
353	Construction and Related Machines	20,150	23,260	3,110	15.40%
492	Gas Production and Distribution	16,160	15,650	-510	-3.20%
	Aggregate	102,830	100,020	-2,810	-2.73%
<b>Refining and Marketing</b>					
29	Petroleum and Coal Products	12,260	10,060	-2,200	-17.90%
46	Pipelines, Ex Natural Gas	2,040	2,070	30	1.50%
517	Petroleum and Petroleum Products	6,030	4,520	-1,510	-25.00%
	Aggregate	20,330	16,650	-3,680	-18.10%
<b>Chemicals</b>					
28	Chemicals and Allied Products	40,630	43,620	2,990	7.40%
516	Chemicals and Allied Products	6,250	7,450	1,200	19.20%
	Aggregate	46,880	51,070	4,190	8.90%

# Overarching Issues

- > Quality of life
- > Education
- > Business/government interface

# Sector Employment Outlook

- > Upstream – slow decline but opportunities exist to change our future
- > Refining and Marketing – today continues
- > Petrochemicals – robust outlook but discontinuities threaten
- > Emergent technologies – opportunity for meaningful organic growth

## Upstream Sector

- > If trends continue, a 3% decline
- > Significant current job base: 103,000
- > But opportunities exist
  - Relocations
  - Expansions: increase global share of market
  - Industry sector revenue outlook

# Relocation Opportunity

- > A "Citgo" every 24-36 months
- > Job creation opportunity: 1,300 jobs/year
- > Relocation target plan required
  - 50 target companies
  - Houston ties to targets
    - Executives
    - Houston-based employees
    - Customer/supplier relationships
    - Incentives required
  - Delivery date mid-September by Greater Houston Partnership



## Refining and Marketing

- > Strong area employer: 20,000 jobs
- > Positive economic outlook
  - Product barriers to entry
  - Domestic supply/demand pressures continue
  - Gulf Coast remains U.S. refining center
- > But productivity and infrastructure investment lead to job losses
- > 3,700 jobs lost 2000-2010

# Petrochemicals

- > Robust demand outlook
- > Forecast robust job growth given historical trends
- > But “big worries”
  - Loss of natural gas feedstock pricing advantage
  - Environmental pressures
  - Productivity gains
  - Minimum investment outlook
  - New plants built offshore
- > Focused task force required

# Petrochemicals Task Force

## **Representatives**

- > Industry, academia, government

## **Delivery date**

- > January 2005

## **Issues to be addressed**

- > Houston's profile as a low margin, bulk chemical producer
- > Continued health of support industries
- > Relocation target companies
- > Growth opportunities not tied to low cost feedstock
- > Steps to mitigate the future "big worries"

# Transformation to the Energy Capital of the World

- > From oil and gas capital to energy capital
- > New leadership requirements
  - LNG terminals/distribution
  - Non-conventional fossil fuel technologies
  - Non-hydrocarbon energy sources
    - Wind
    - Hydrogen
    - Solar
  - Emergent infrastructure support technologies
    - Materials science
    - Nanotechnology
    - Engineering research
  - High mayoral profile
  - Strategic plan required

# Alternative Energy Strategic Plan

## Representatives

- > Thought leaders from industry, academia, government

## Delivery date

- > Spring 2005

## Issues to be addressed

- > Establish required materials science and engineering research capacity necessary for world leadership
- > Develop a plan to attract, retain, and nurture companies working in the alternative energy sector
- > Jobs creation forecast

# **Mayor's Taskforce on Economic Development: Biotechnology**

**June 15, 2004**

# Biotechnology: The Future of Houston

- > #1 industry for job growth in Houston
- > 30,000 new jobs
- > Recommended actions for increasing job growth
  - Provide leadership to close 1-2 major biopharmaceutical moves to Houston
  - \$100 Million of City pension funds invested in local venture capital funds
  - Chair CEO summit to finalize nano-bio-info research and commercialization center
  - The COH/County to guaranty Industrial Revenue Bond financing for physical plant expansion (job creation) of existing high-growth businesses in biopharmaceutical manufacturing

# Current Trends and Forces Affecting Job Growth

## Employment/talent

- > Shortage of qualified management and workforce to support growth of the cluster

## Commercialization

- > West and East coast have fully developed entrepreneurial culture

## Research and development

- > Research and Innovation: Texas is fifth in nation, with 65% or \$1.4B in Houston region
- > Commercialization: tremendous opportunity

## Capital

- > Inadequate early stage and expansion capital as well as investment banking support

## Reputation/marketing

- > Recognized worldwide for patient care and research

## Infrastructure

- > Services in support of industry appropriate incentives, stable power and water, and "wet lab" incubator not on par with competing regions

## Business climate

- > Texas is a "can do" state with minimal regulatory and tax roadblocks



# Prioritization of Current Challenges

	Metric	Current/aspiration	Importance	Mayor's ability to influence
Employment/ Talent	Employment including TMC	> Current: 65,000 > Aspiration: 95,000	High	High
Commercialization	Number of start-ups	> Current: 20/year (Houston) > Aspiration: 48/year (Boston)	High	Moderate
Research and Development	Research and academic R&D	> Current: >\$1B > Aspiration: >\$1.6B* *10% annual growth	High	Moderate
Capital	Amount of available capital	> Current: > Aspiration:	High	High
Reputation/ Marketing		> Current: Research and Patient Care Leader > Aspiration: Vibrant Biotech Cluster	Moderate	High

# Recommended Actions for Increasing Job Growth

## Research and development

- > Chair CEO summit to finalize nano-bio-info research and commercialization center

## Capital

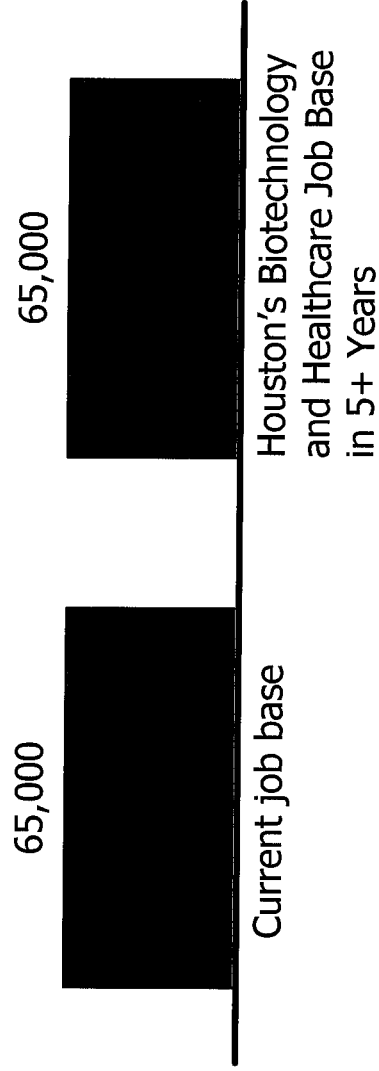
- > \$100 Million of City pension funds invested in local venture capital funds

## Reputation/marketing

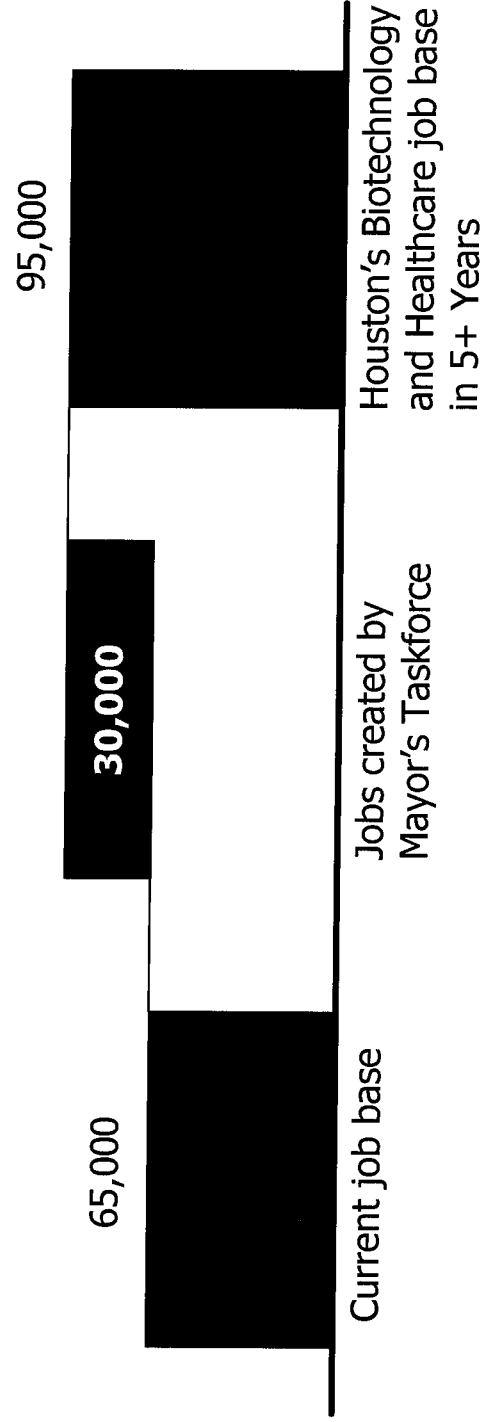
- > Provide leadership to close 1-2 major biopharmaceutical moves to Houston
- > The COH/County to guaranty Industrial Revenue Bond financing for physical plant expansion (job creation) of existing high-growth businesses in biopharmaceutical manufacturing

# Effect Of Recommended Programs On Job Growth

## Baseline case (do nothing)



## Forecast case if Houston takes action



# **Mayor's Taskforce on Economic Development: Information Technology**

**June 15, 2004**

# Today's Discussion

- > ITech team's high-level assessment
- > Detailed summary of recommendations

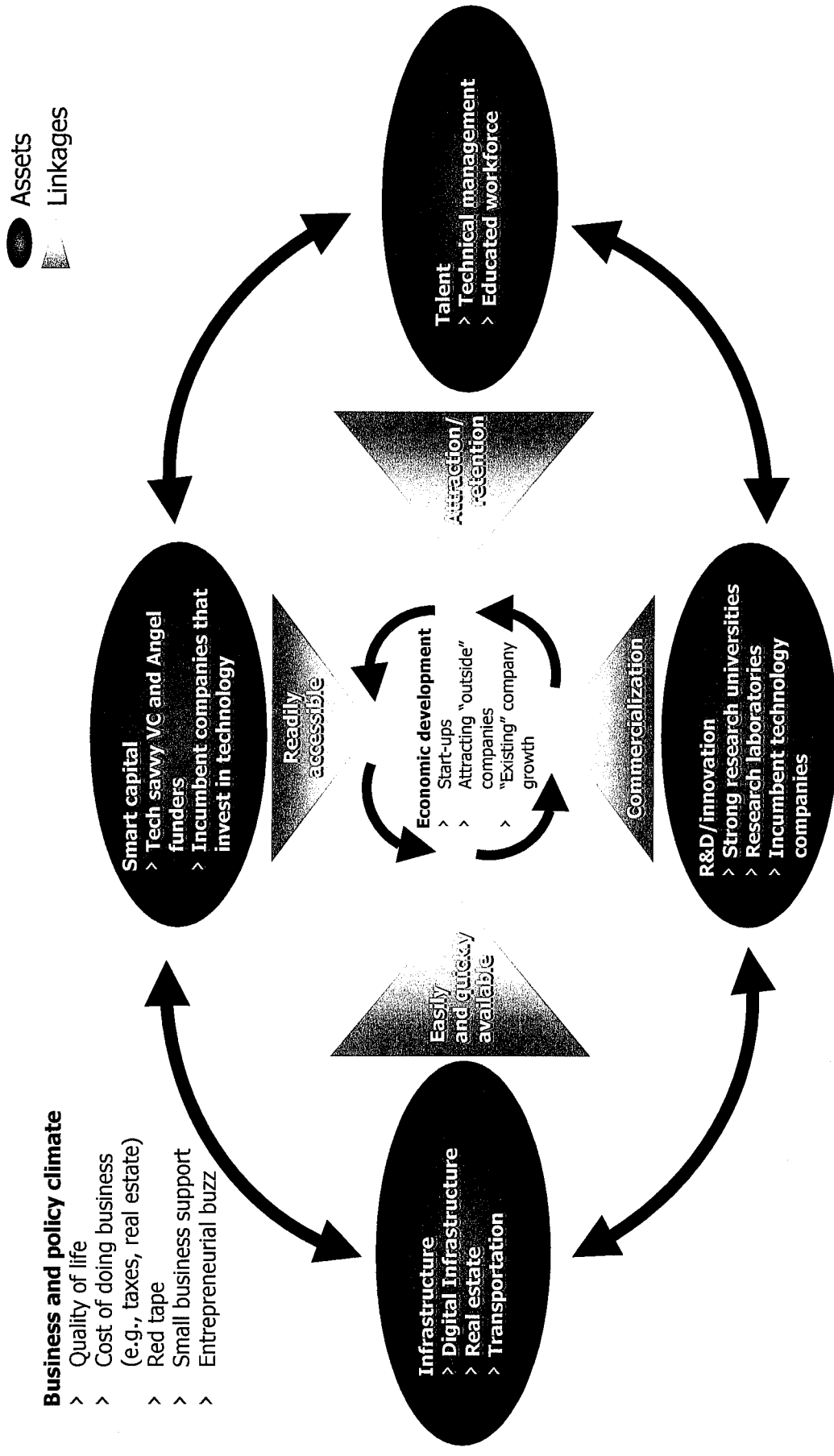
# ITech Houston

- > **Objectives:** Determine what actions the government can do to save and grow **technology jobs** in the Houston area
- > **Chairpersons:** Bob Beauchamp and Rod Canion
- > **Taskforce members:**
  - Bob Stearns – Sternhill Patners
  - Paul Frison – Houston Technology Center
  - Alex Gruzen – HP
  - Arshad Matin – Bindview
  - Doug Pushard – BMC

## Team's High-Level Assessment

- > Implications for Houston's current IT landscape
  - Unlikely that Houston will become one of the top IT hubs
  - Given offshoring trend, IT sector will likely lose jobs in larger companies
- > However, technology will be critical to the success of all companies
  - Regardless of sector, companies will rely on technological advancements for growth, reduction of costs, and increased efficiency
- > Houston can take certain actions now (slides to follow) to improve its prospects for job creation, particularly by smaller companies, thus positioning itself to take advantage of specific growth sectors
- > Nanotechnology has emerged as a growth sector for the future, and Houston is primed to be a leader in nano-research
- > Nano-research stretches across many disciplines and can lead to advancements/growth in bio, energy, etc.

# Team's Framework for Developing Recommendations – Business Creation Ecosystem





# Assessment of Recommendations

ITech Team's recommendation for Universities/Talent/Smart Capital	Role/responsibility of Mayor (funding, time, etc.)	Estimated cost to implement recommendation	Estimated impact in jobs
<p><b>Coordinate efforts of local, regional, and state economic development organizations and provide additional support for pursuit of federal and state funding for universities and businesses</b></p>	<ul style="list-style-type: none"> <li>&gt; Reorganize city departments to more effectively target IT economic development</li> <li>&gt; Provide vision/support for cooperative efforts between local, regional, and state economic development agencies</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>\$0</b> if existing City of Houston resources are leveraged</li> <li>&gt; <b>~\$400K</b> to establish a dept. of 5 economic development coordinators to provide RFP assistance and coordination of local, regional, and state economic development efforts</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Academic: Strive to bring in \$5M in grants per year for <b>~70-100 jobs</b></li> <li>&gt; Small business: Strive to guide 5 start-ups per year through the grant process to create <b>~5-20 jobs</b></li> </ul>
<p><b>Sample steps/actions for implementation</b></p> <ul style="list-style-type: none"> <li>&gt; Assess current City of Houston economic development efforts and level of coordination with other local, regional, and state agencies</li> <li>&gt; Gather best practices from other cities' efforts such as the Pittsburgh Greenhouse, the Baltimore Economic Development Corporation, and the Virginia Center for Innovative Technology</li> <li>&gt; Determine organizational structure and funding mechanisms for the expanded effort</li> <li>&gt; Launch effort by promoting to local universities and local, regional, and state economic development agencies</li> <li>&gt; Widely promote the effort to the general public (local, state, national) in order to attract entrepreneurs</li> </ul>			
<p><b>Description/summary of examples from other cities</b></p> <ul style="list-style-type: none"> <li>&gt; Academic example (University of Hawaii): Every \$1 of grant money received creates \$2.10 of economic activity; on average for every \$1M received, 5 full time and 18 part-time positions are created</li> <li>&gt; Bio-tech Small Business (Pittsburgh, PA Greenhouse): \$33M onetime state funding; Effort helped 5-15 companies through the Small Business Innovation Research (SBIR) grant process. Results can range from \$100K-\$1M in funding per company per year. Typical micro-business employs 1-4 people</li> <li>&gt; Texas state example: In past Texas Enterprise Fund deals, the average number of jobs is 19 per \$1 million in funding (from city, regional, and state funds in addition to the TEF funds)</li> <li>&gt; State Level (Virginia Center for Innovative Technology): Using \$7.8M from the state legislature, program generated \$44M in federal and state grants for Academia and \$17.8M for Business and also helped establish 208 start-ups which contributed \$15.6M to the economy</li> <li>&gt; 7 out of the top 10 cities for Information Technology employment identify a specific individual who is the city's contact for economic development activities</li> </ul>			

# Assessment of Recommendations (Continued)

ITech Team's recommendation for Universities/talent	Role/responsibility of Mayor (funding, time, etc.)	Estimated cost to implement recommendation	Estimated impact in jobs
<b>Encourage local universities and donors to improve recruitment of "rock star" faculty. This might be focusing on a single strong researcher or funding a set of endowed chairs</b>	<ul style="list-style-type: none"> <li>&gt; Consensus-building around aspirations in research fields</li> <li>&gt; Support for fundraising efforts</li> <li>&gt; Resolving any government-related issues (e.g., real estate issues for buildings)</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>\$2M-3M</b> per endowed chair</li> <li>&gt; Mayor White might drive a fundraising effort rather than rely on City funds</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Direct job growth would be the faculty and associated staff (<b>~5-10</b>)</li> <li>&gt; Indirect job growth (perhaps <b>50-100 per professor</b>) will take years, driven by a research "cluster" of start-ups and relocated businesses</li> </ul>
<b>Sample steps/actions for implementation</b>			
<ul style="list-style-type: none"> <li>&gt; Determine priority fields for additional research strength (i.e. nanotechnology)               <ul style="list-style-type: none"> <li>▪ Conduct discussions with private sector to understand their future research priorities as well as to seek potential funding</li> </ul> </li> <li>&gt; Identify potential "rock stars" within priority fields and required support (endowed chair, facilities, etc.)</li> <li>&gt; Pursue targets, including selling them on Houston</li> </ul>			
<b>Description/summary of examples from other cities</b>			
<ul style="list-style-type: none"> <li>&gt; Faculty recruitment does not take place in a vacuum. To attract the top minds in a field, a university or community typically invests in facilities (labs, educational buildings, research centers). For example, Arizona State University is building a \$3.8 million microbiology lab to attract a single prominent scientist</li> <li>&gt; Faculty recruitment also goes hand in hand with other activities such as RFP/grant assistance, incubator funds, and commercialization programs. For example, the Georgia Research Alliance has invested \$375 million over the past 12 years to attract 40 top scholars to Georgia universities, leverage \$2 billion in federal and private funding, create more than 3,000 technology jobs and generate 90 new technology companies</li> </ul>			

# Assessment of Recommendations (Continued)

ITech Team's recommendation for Smart Capital	Role/responsibility of Mayor (funding, time, etc.)	Estimated cost to implement recommendation	Estimated impact in jobs
<p><b>Create a Houston seed fund using HTC infrastructure (e.g., STARTech) that would help in growing early-stage companies to the level at which VCs can then invest</b></p>	<ul style="list-style-type: none"> <li>&gt; Provide funding for program administrator who would help raise funds and then manage the portfolio; recommendation is to use HTC infrastructure (close access to deal flow, Angel Network, etc.)</li> <li>&gt; Determine potential incentives/benefits City can give companies for contributing to fund</li> </ul>	<ul style="list-style-type: none"> <li>&gt; ~\$200K for program administrator (funds provided by City)</li> <li>&gt; ~\$1M per year from outside sources to provide seed funding for 10 companies (\$100K/company)</li> </ul>	<ul style="list-style-type: none"> <li>&gt; ~300 to 600 jobs over 5 years</li> <li>&gt; Job estimate based on average success rate of start-ups, employment growth for start-up, etc.</li> </ul>

## Sample steps/actions for implementation

- > Determine feasibility of an endowment approach
- > Determine feasibility in raising money from private organizations or through grants/government
- > Explore potential incentives City can offer private sector for their contributions
- > Investigate legal structure for fund
- > Determine reporting structure
- > Deploy, find personnel

## Description/summary of examples from other cities

- > Oklahoma Capital Investment Board (fund of funds) privately managed; IRR since inception 29.6% (1999)
- > Kansas Venture Capital, Inc KVCi; 7+ exited successfully; money raised from Kansas banks, VC, State

# Assessment of Recommendations (continued)

ITech Team's recommendation for Smart Capital	Role/responsibility of Mayor (funding, time, etc.)	Estimated cost to implement recommendation	Estimated impact in jobs
<b>Celebrate/promote Houston's successful entrepreneurial stories</b>	<ul style="list-style-type: none"> <li>&gt; Not much funding required by the Mayor; funding could come from the council itself</li> <li>&gt; Time required by Mayor varies. It may be just a phone call to quote the Mayor in a monthly newsletter, or have the Mayor attend and deliver speeches at Entrepreneurial Conferences</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>&lt;\$200,000</b> (high end)</li> <li>&gt; Initial costs, excluding setting up conferences, should be significantly lower than this estimation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; No significant direct job creation impact</li> <li>&gt; However, the creation of a council focusing on promoting entrepreneurship could have significant job impact</li> </ul>

## Sample steps/actions for implementation

- > Determine what current city-wide projects or groups have been developed to promote entrepreneurship in Houston
- > Research on what Research Triangle Park or any other cities have done in developing an entrepreneurial economy
- > Identify the key business leaders, entrepreneurs, and professors to form a group similar to the Council for Entrepreneurial Development at RTP
- > This group could be within GHP or outside of GHP, funded by the group's membership. The Mayor can have great influence in this step
- > Develop a project plan for the formation of the council, focusing on mentoring, education/training, capital/VC and communications
- > Initiate first set of communications, monthly education, and networking programs for entrepreneurs, including selling the council to encourage entrepreneurs to become members

## Description/summary of examples from other cities

- > Council for Entrepreneurial Development (CED) in Raleigh Durham's Research Triangle has developed several communications strategies they use to promote success stories and highlight start-ups, including a quarterly newsletter called CED Connection , 2) a monthly newsletter called Venture Update, 3) Annual Venture Conference, 4) Annual InforTech Conference, 5) Entrepreneurial Excellence Awards. The Research Triangle has been successful over the years in developing itself into an entrepreneurial and tech hub; Houston could consider some of these successful communications initiatives used by RT to promote successful entrepreneurial stories. (Source: [www.cednc.org](http://www.cednc.org))
- > San Antonio Tech News (working with San Antonio Technology Accelerator Initiatives) is an online website that promotes technology information in San Antonio. It has a section called "15 minutes" that features write-up of a tech company. (Source: [www.satechnews.com](http://www.satechnews.com))
- > Oregon Entrepreneurs Forum has a program called Portland Angel Network (PAN), an organization of accredited angel investors who meet quarterly to listen to presentations from promising companies. (Source: [www.oef.org](http://www.oef.org))

# **Information Technology Backup Material**

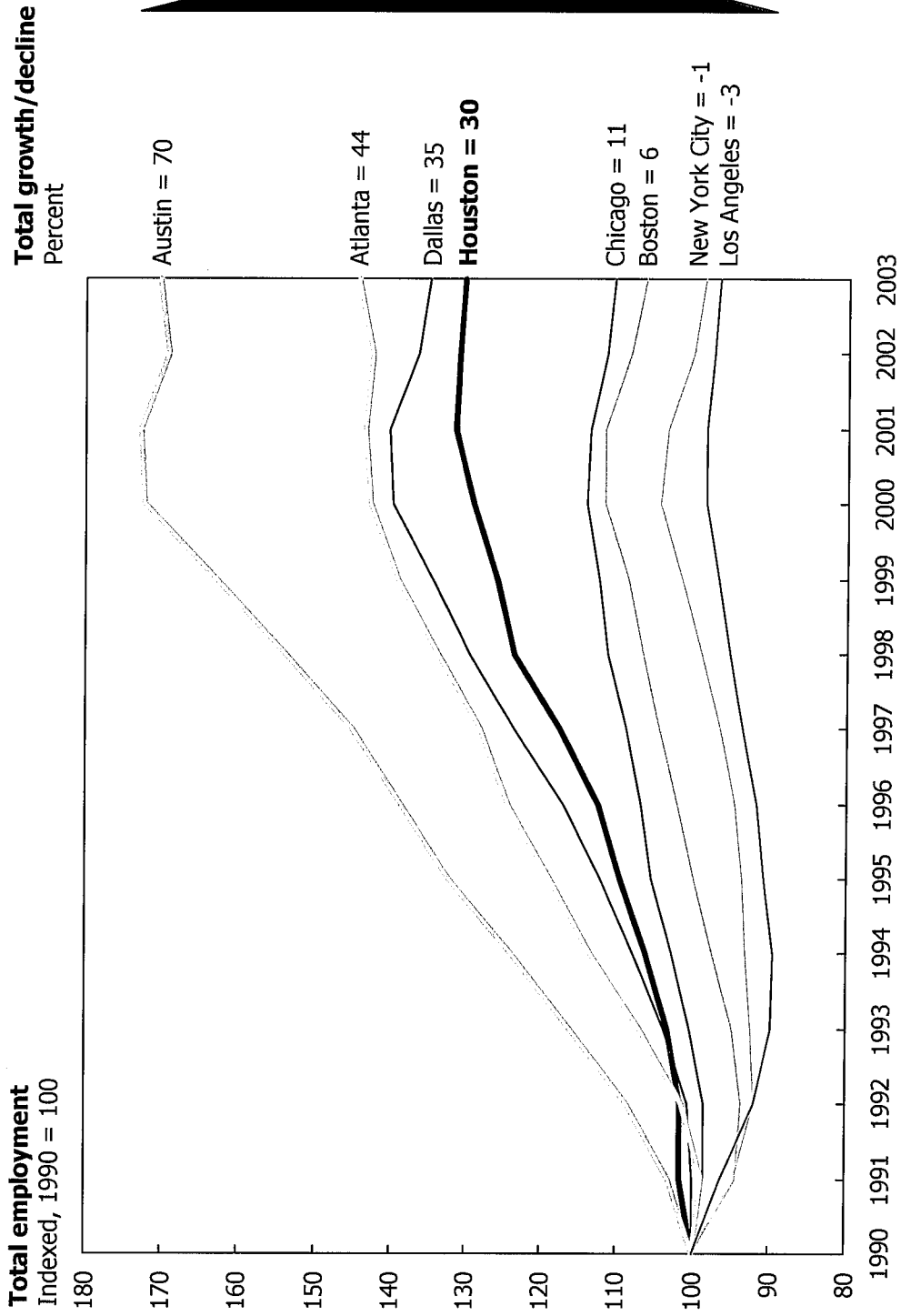
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## > **Overview of Houston employment and job creation**

- > Current offshoring trends and statistics
- > Assessment/comparison of Houston's capital
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- > Assessment/comparison of Houston's infrastructure

# Houston's Overall Job Growth has been Strong

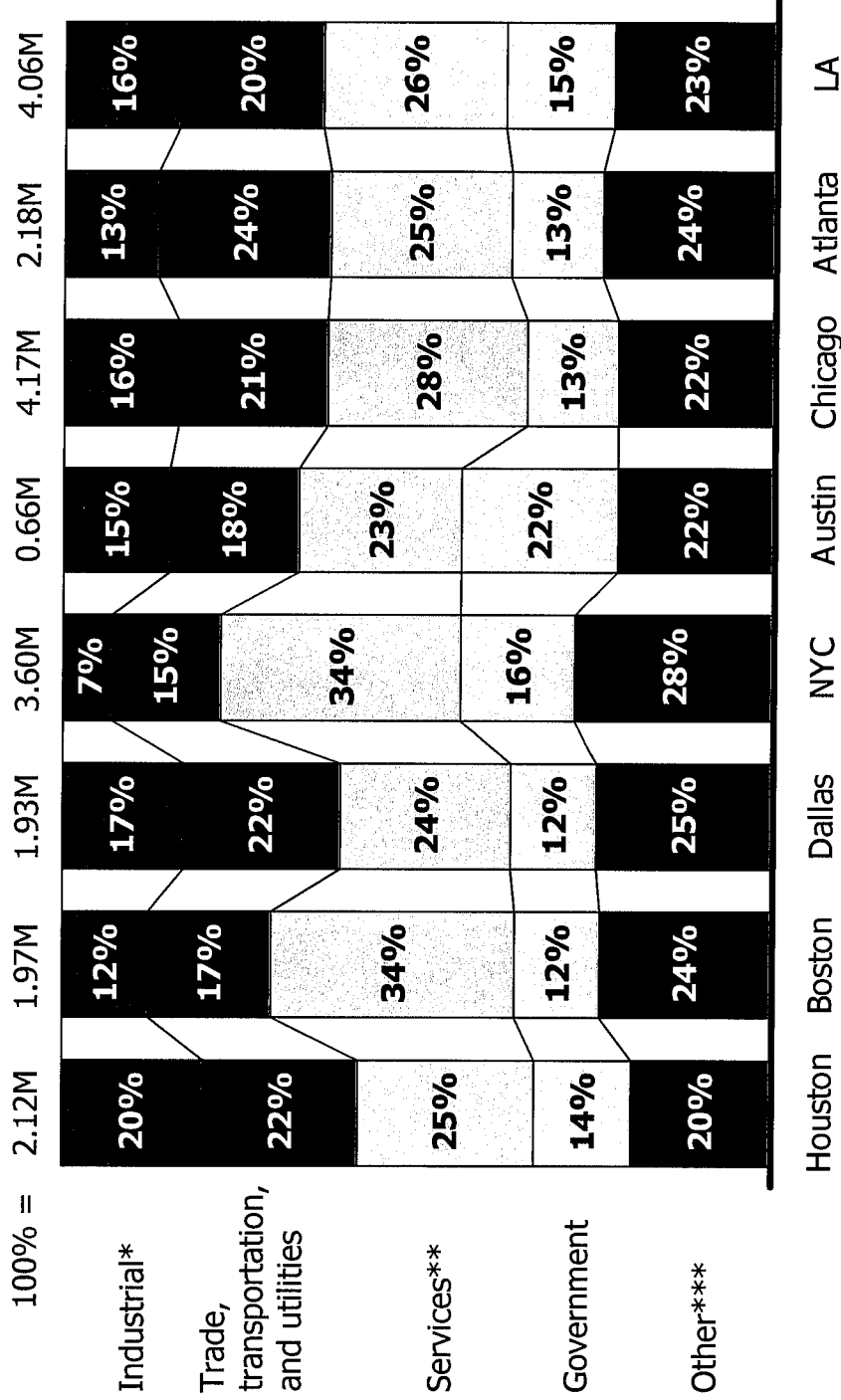


Houston's job growth has exceeded other major cities, but trails its Texas counterparts

Source: Bureau of Labor Statistics

# Houston's Employment Mix is Fairly Typical

As of December 2002



\* Includes natural resources and mining, construction, and manufacturing

\*\* Includes both professional and business services and education and health services

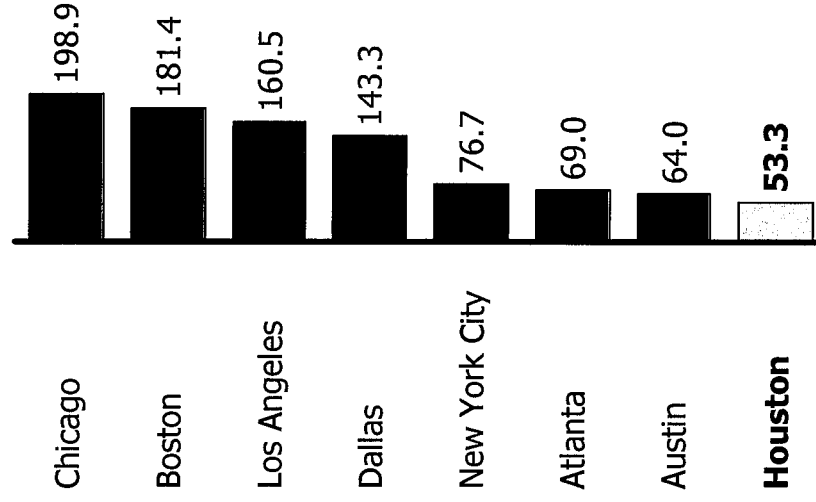
\*\*\* Includes information, financial activities, leisure and hospitality, and other services

Source: Bureau of Labor Statistics

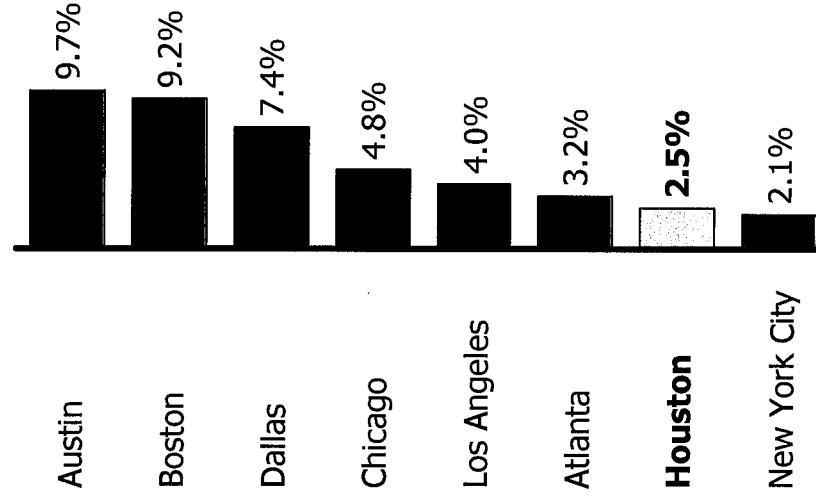


# Employment by IT Companies in Houston Significantly Trails Other Metro Areas

**Total IT employment (by IT sector)**  
Thousands, 2002 average



**Relative IT employment**  
Percent of total employment



> Houston's low IT sector employment suggests an opportunity for growth vs. other cities to claim **"fair share"** of IT companies

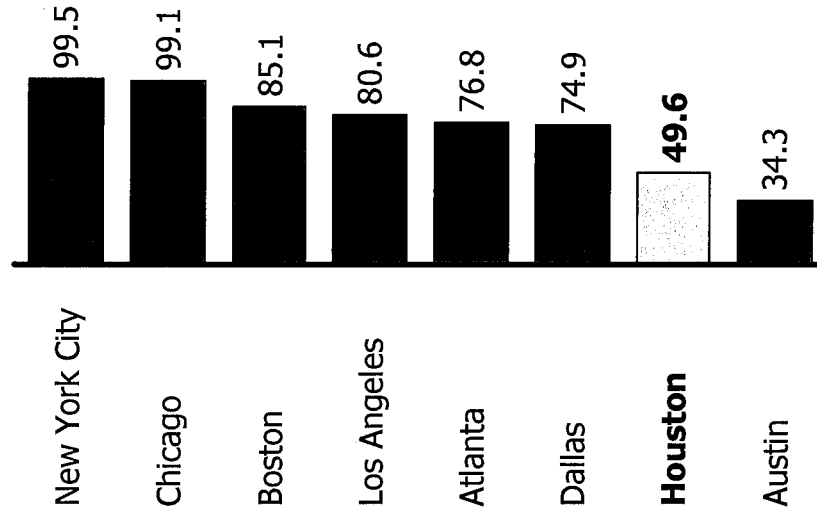
> However, low absolute number of employees of IT companies means even strong job growth **unlikely to add large number of jobs** quickly

\* IT sectors include computer and electronic product manufacturing, computer and peripheral equipment manufacturing, communications equipment manufacturing, semiconductor and other electronic component manufacturing, software publishers, Internet service providers, Web search portals, data processing services, computer systems design and related services, management, scientific, and technical consulting services, scientific research and development services, other professional, scientific, and technical services

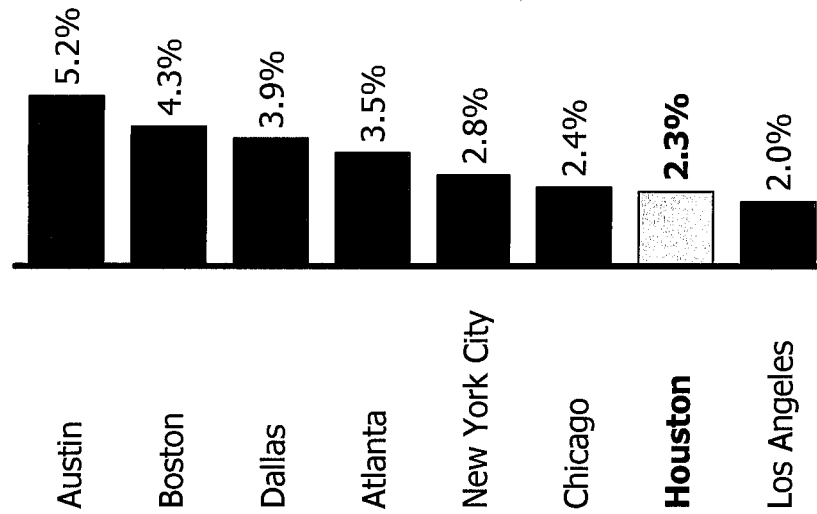
Source: Bureau of Labor Statistics

# Houston Employment in IT Jobs Also Trails Other Metro Areas

**Total IT employment (by IT occupation\*)**  
Thousands, 2002 average



**Relative IT employment**  
Percent of total employment



Even outside the IT sector, Houston has **relatively few IT workers**, particularly for its size

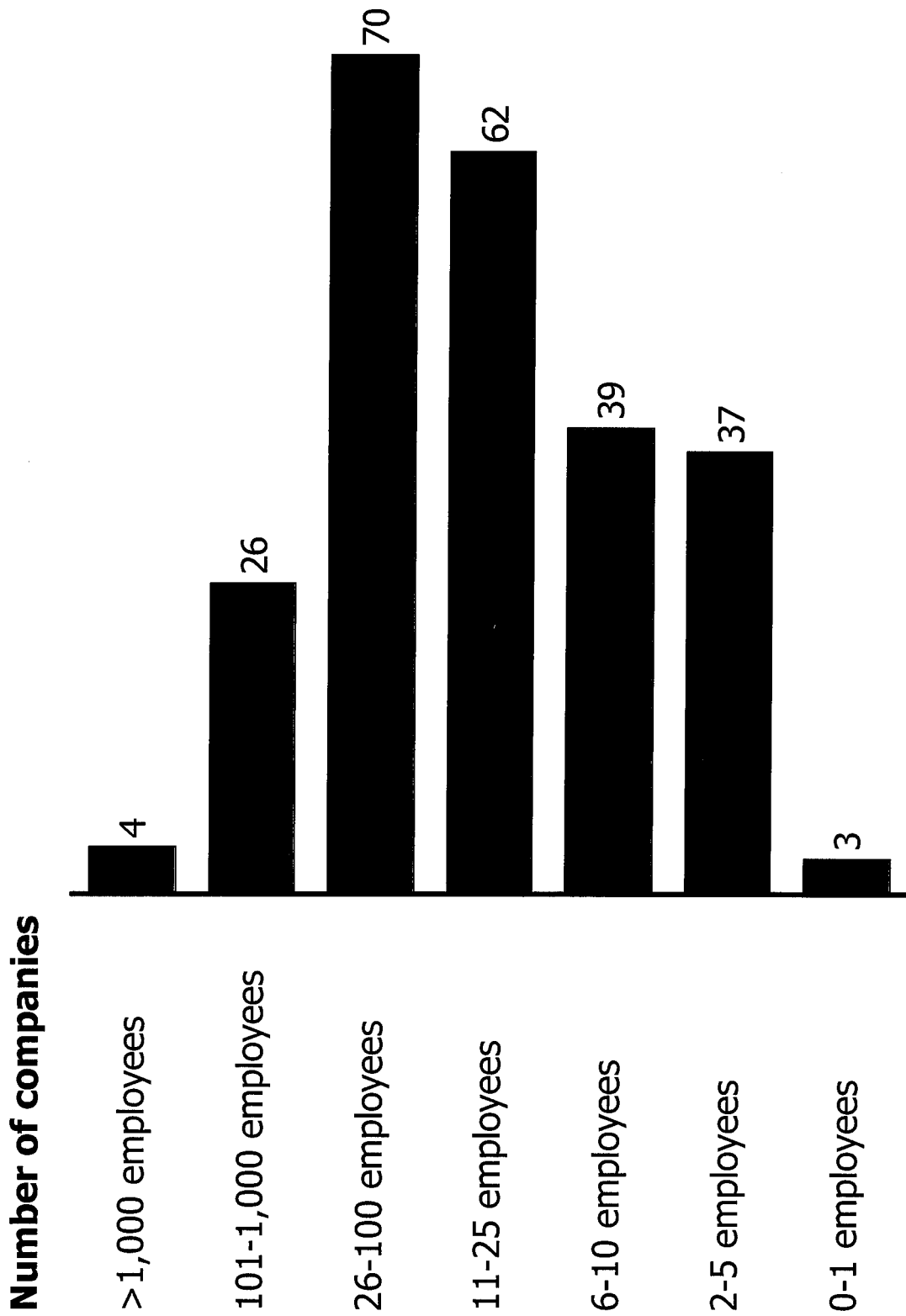
\* IT occupations include computer and information systems managers, computer and information scientists, research, computer programmers, computer software engineers, applications, computer software engineers, systems software, computer support specialists, computer systems analysts, database administrators, network and computer systems administrators, network systems and data communications analysts, computer hardware engineers

Source: Bureau of Labor Statistics

# Houston Is Underrepresented in the Fast-Growing Software Development Sector

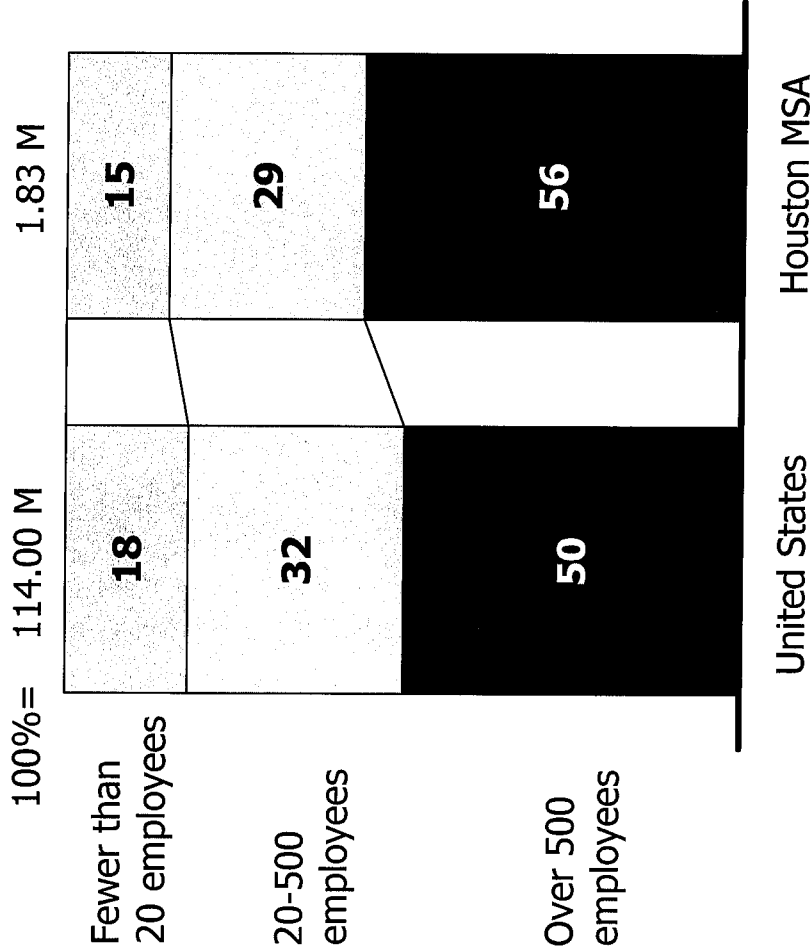
City	Software development employment	Rank	Per capita software development
Washington, DC	144,090	1	Boulder, CO
Chicago, IL	95,900	2	San Jose, CA
New York, NY	89,560	3	Washington, DC
Boston, MA-NH	78,650	4	San Francisco, CA
San Jose, CA	75,180	5	Seattle, WA
Los Angeles-Long Beach, CA	71,420	6	Raleigh-Durham-Chapel Hill, NC
<b>Dallas, TX</b>	<b>69,150</b>	<b>7</b>	<b>Austin, TX</b>
Atlanta, GA	62,130	10	Boston, MA
Seattle-Bellevue-Everett, WA	57,790	11	Madison, WI
Philadelphia, PA-NJ	52,830	12	Lowell, MA
<b>Houston, TX</b>	<b>49,050</b>	13	Denver, CO
San Francisco, CA	45,900	<b>14</b>	<b>Dallas, TX</b>
		<b>49</b>	<b>Houston, TX</b>

# Houston Software Company Employment



# Even As A Large City, Houston Is Heavily Dependent On Smaller Businesses

**Total employment by employer size**  
March 2000



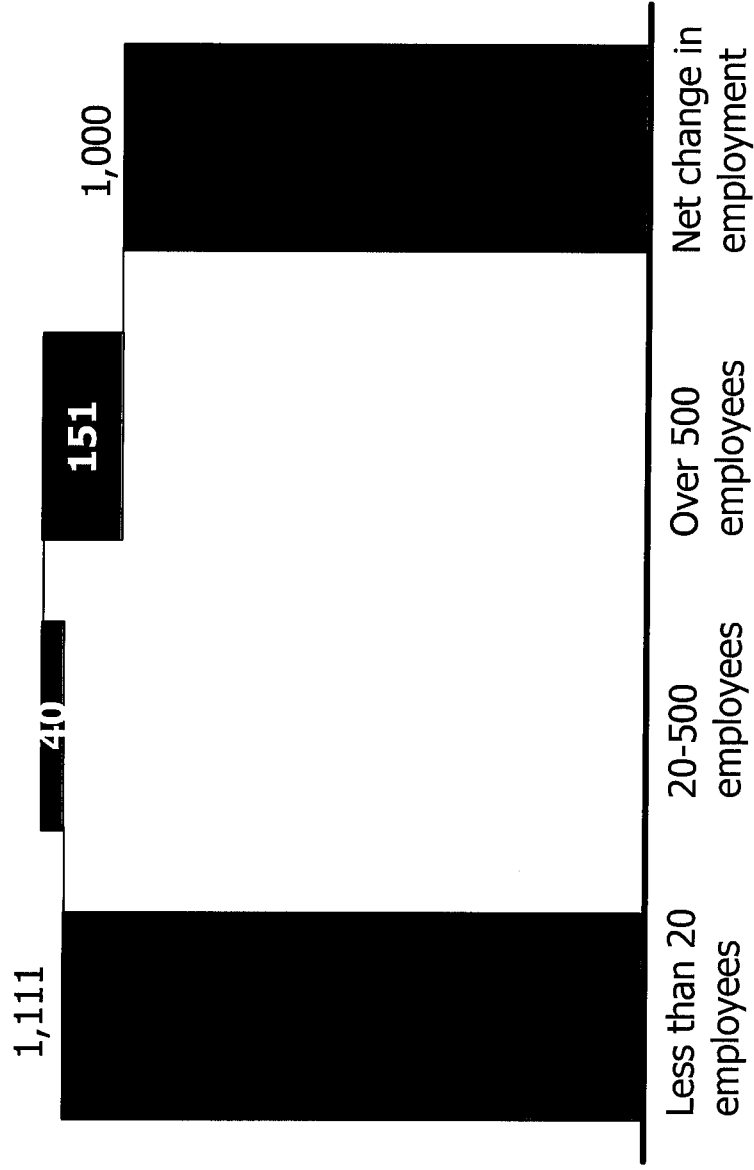
Houston may be a large city with large employers, but small company employment is similar to the national average

Source: U.S. Small Business Administration; Bureau of the Census

August 2, 2004

# Small Companies Are Responsible For Most Job Growth

**Net new jobs by employer size**  
Thousands, March 2000-March 2001



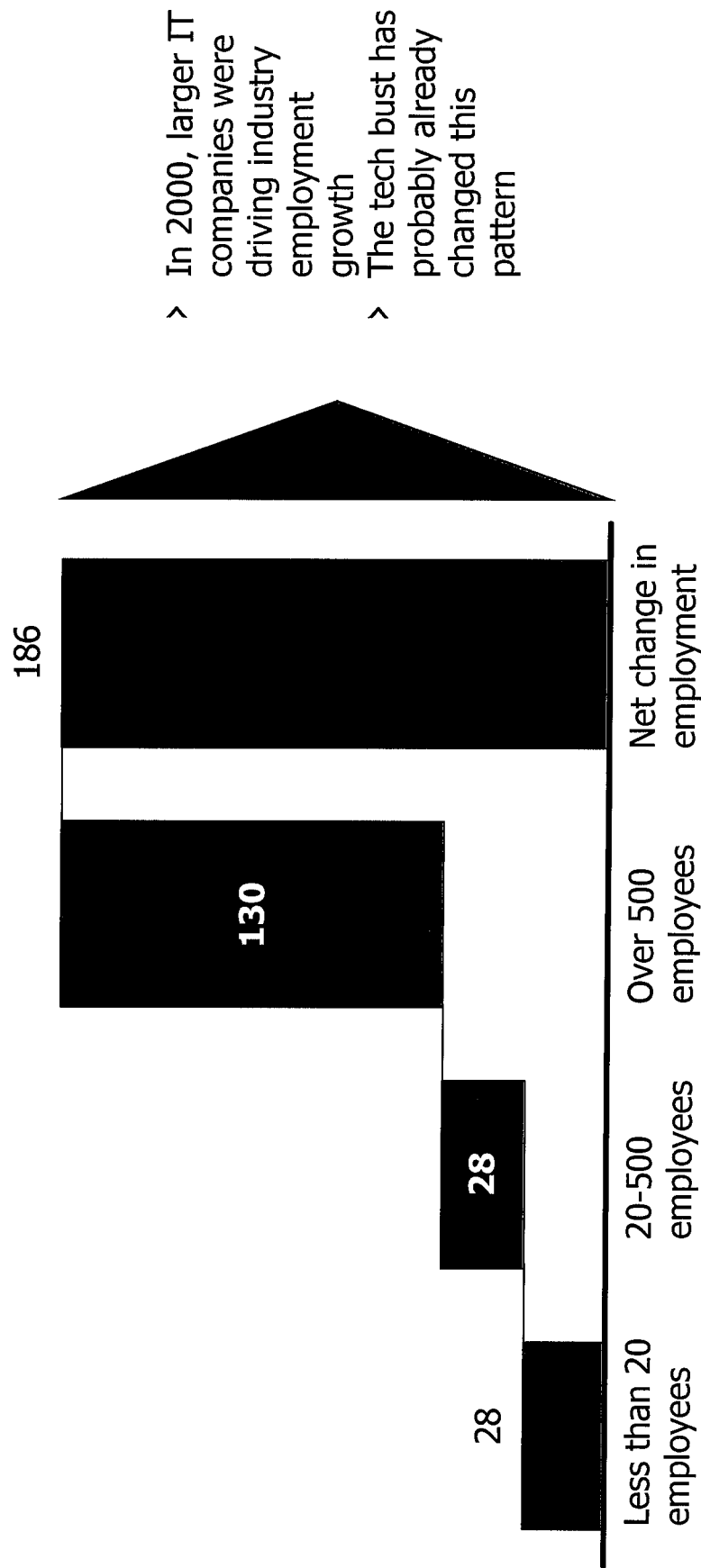
New jobs are most likely to come from small businesses

Source: U.S. Small Business Administration; Bureau of the Census

August 2, 2004

# In 2000, Large IT Employers Were An Exception, Adding Many Jobs

**Net new jobs by IT employer size**  
Thousands, March 2000-March 2001



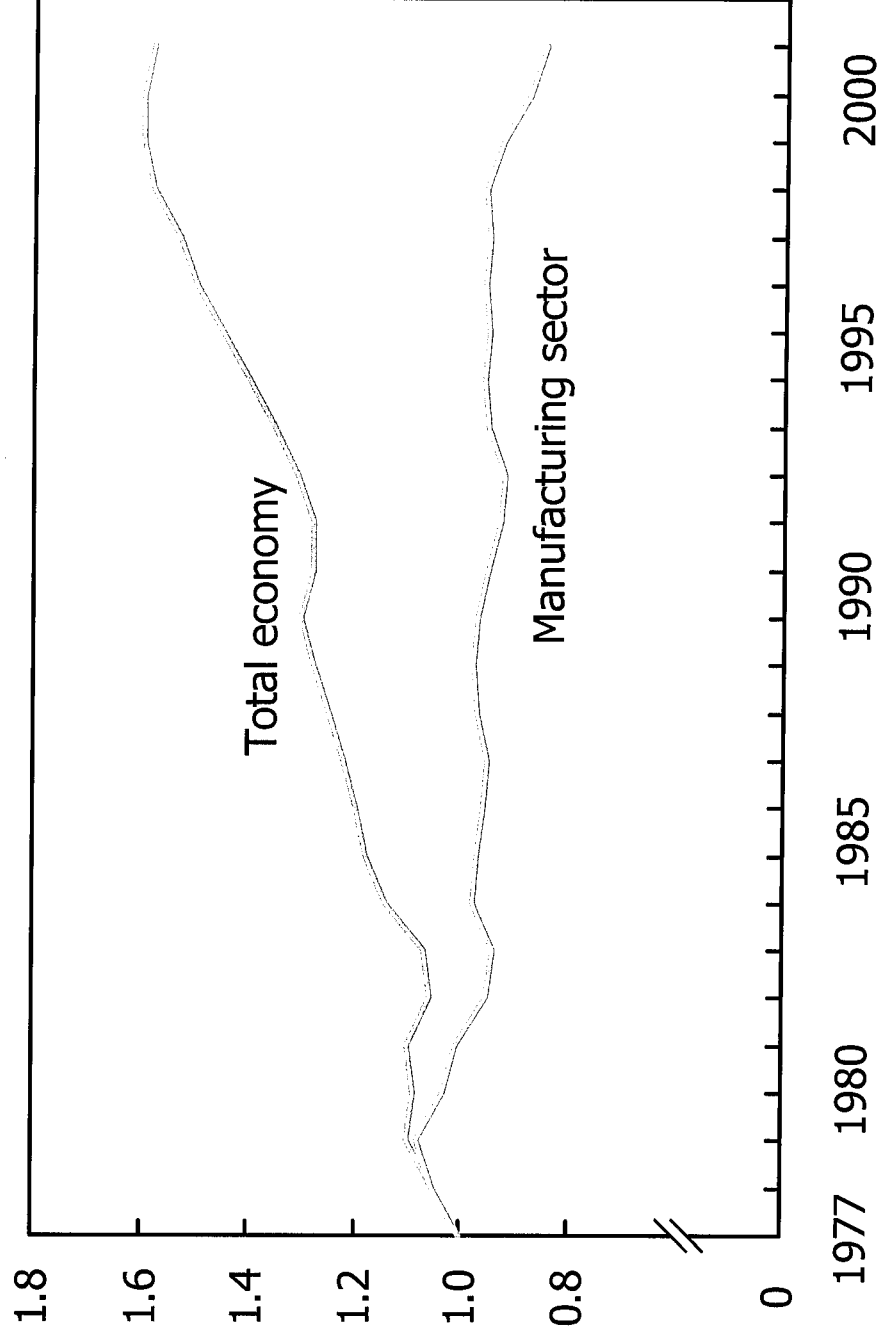
Source: U.S. Small Business Administration; Bureau of the Census

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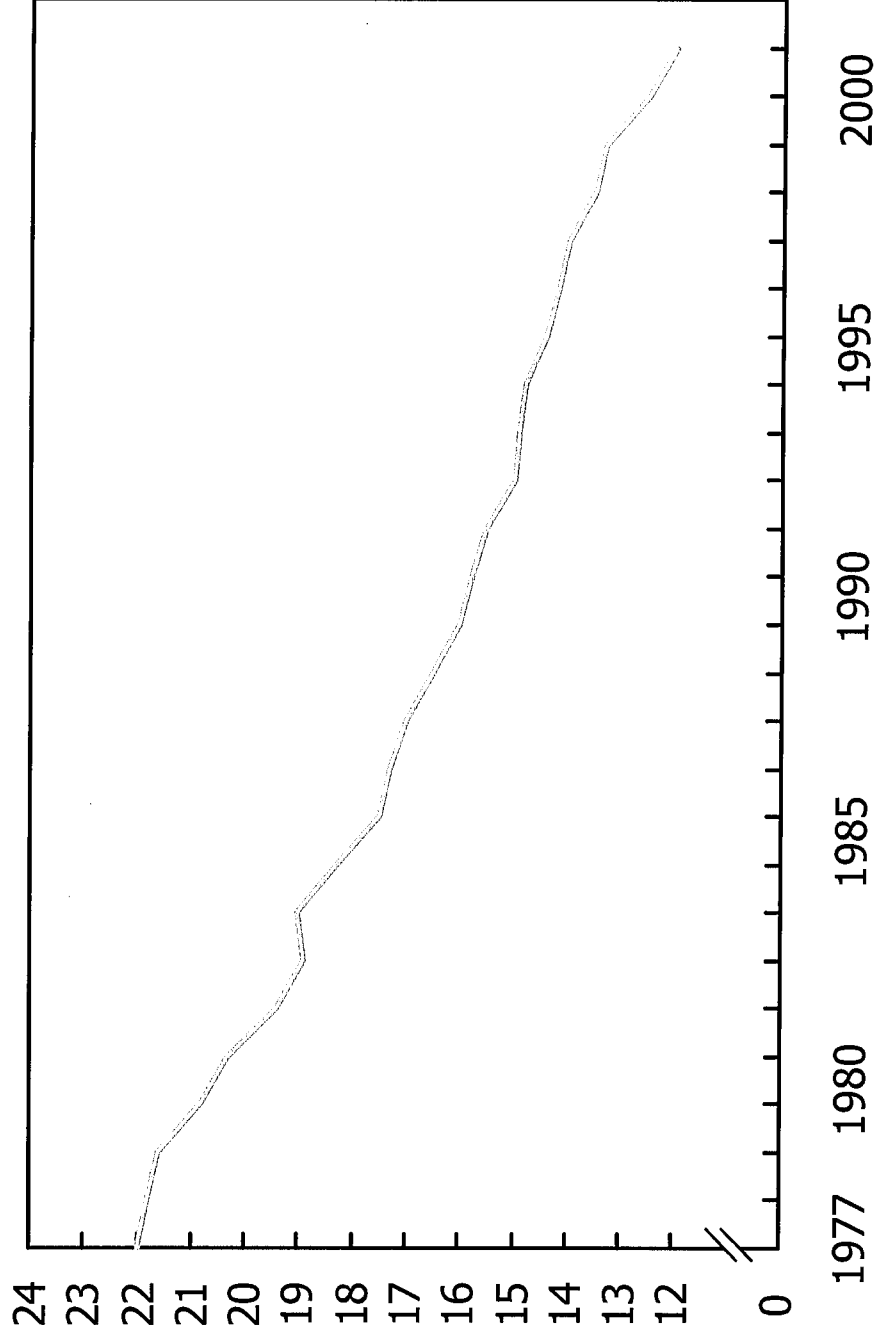


# Total Employment Growth and Manufacturing Employment Decline 1977-2002



Source: U.S. Department of Labor, Bureau of Labor Statistics

# Manufacturing Share of Total Employment



Source: U.S. Department of Labor, Bureau of Labor Statistics

# Manufacturing Jobs Around the Globe

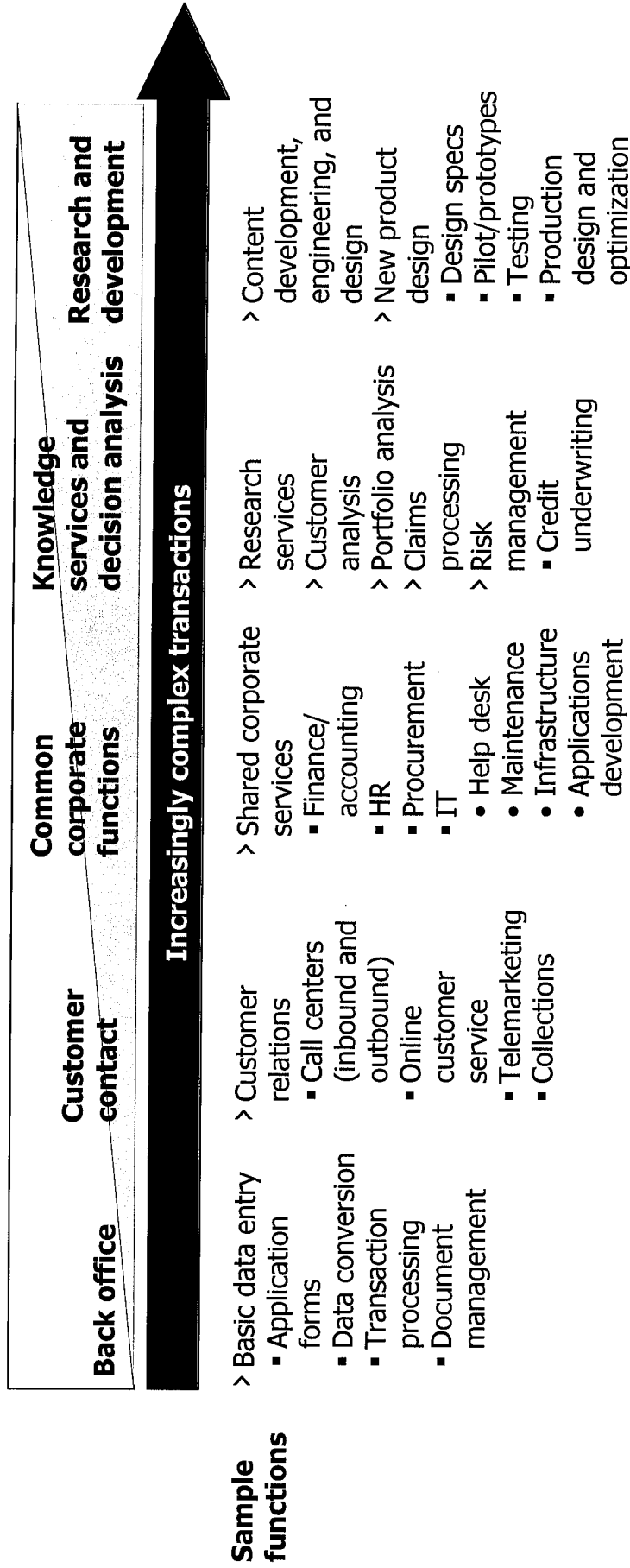
Millions of workers

	1995	2002	Percent change	Numeric change
<b>China</b>	98.0	83.1	-15%	-15.0%
<b>United States</b>	17.3	15.3	-11%	-1.9%
<b>Russia</b>	17.1	15.1	-12%	-2.0%
<b>Japan</b>	14.6	12.2	-16%	-2.3%
<b>India</b>	6.5	6.5	0%	0%
<b>United Kingdom</b>	4.4	3.9	-12%	-0.5%

Source: Haver Analytics; AllianceBernstein

# Offshoring is Expected to Grow, Affecting More Complex Jobs, Particularly in IT

- ☐ Low-cost labor
- ☐ Access to highly skilled labor pool



## Sample companies



Source: Press releases and news; expert interviews; team analysis

# The Software Pyramid

Software programming is the iconic job of the Information Age, but not all programmers are created equal. Here is the breakdown of software jobs and their prospects:

1

**Architects** A few thousand tech visionaries sketch out entire systems to handle complex jobs. Adam Bosworth, for example, is the chief architect at BEA Systems.

Pay \$150,000-250,000

Outlook Outsourcing is a non issue.

2

**Researchers** They are key to innovation, which is crucial to the U.S., but there are only about 25,000 in the country, many in academia, where tenure trumps pay.

Pay \$50,000 in academia to \$195,000 in private sector

Outlook Prospects should brighten somewhat with the economy, but these jobs can move offshore too.

3

**Consultants** Business-savvy consultants advise corporations about their technology needs, help them install new software, and create new applications from scratch.

Pay \$72,000-200,000

Outlook Still bright for Americans. U.S. customers want face time with consultants.

4

**Project Managers** Crucial cogs in global software factories. They coordinate the work of teams in different countries and time zones and provide dependable products on schedule.

Pay \$96,000-130,000

Outlook Good managers can write their own tickets. Pay has jumped 14.3% in the past 2 years.

5

**Business Analysts** Go-betweens. About 100,000 figure out what a business needs and turn it into a spec sheet for programmers. It is a key role now, since the company and its programmers are often apart.

Pay 52,000-90,000

Outlook A relatively safe haven for programmers if they have communications skills and a grip on business.

6

**Basic Programmers** The foot soldiers in the information economy, they write the code for applications and update and test them. Numbering about 1 million, they are one-third of all U.S. software engineers and programmers.

Pay Has tumbled 15% since 2002. Now \$52,000-81,000

Outlook Watch out. Many of these jobs can be done anywhere. Forrester predicts 18% of them will be offshore within 6 years.

Source: Forrester Research; Foote Partners; Kennedy Information Inc.; *Business Week*

# IT Jobs are Expected to be the Focus of the Offshoring Trend through 2015

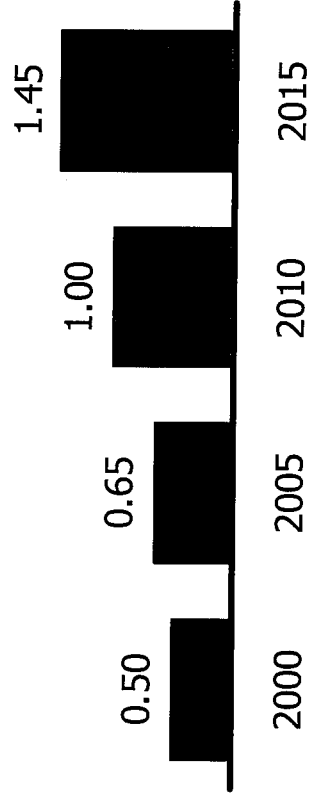
## Service jobs moved overseas through 2015

Computer	472,632
Business	348,028
Management	288,281
Sales	226,564
Architecture	184,347
Legal	76,642
Life Sciences	36,770
Art, Design	29,564
Total office jobs	1,659,310

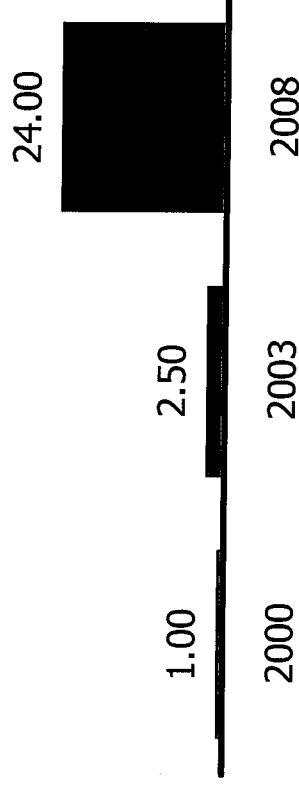
Source: Forrester Research

# Why Corporate America Is Beating a Path to India

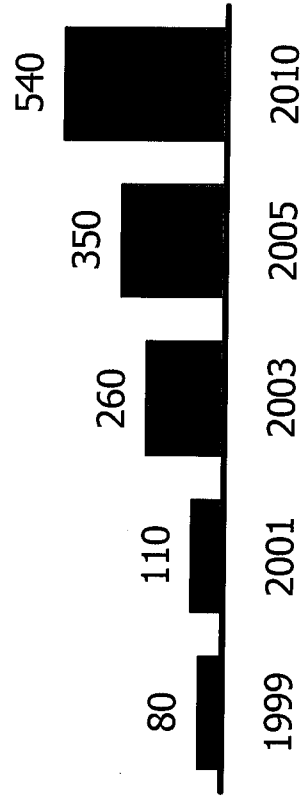
**Growth prospects are accelerating . . .**  
GDP in U.S. \$ Trillions



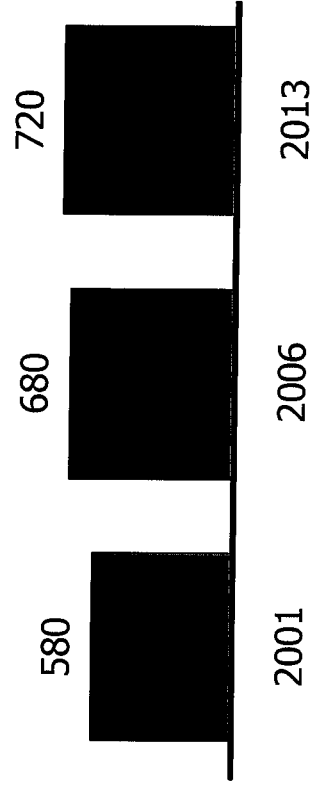
**. . . fed by booming exports of IT-related services**  
U.S. \$ Billions



**. . . a growing pool of tech graduates**  
Thousands



**. . . and a swelling workforce**  
Millions



Source: Goldman Sachs; Sachs & Co.; McKinsey & Company/Nasscom; Nasscom estimates; CLSA Emerging Markets; Statistical Outline of India

# Who Is Bulking Up?

## Some of the Biggest U.S. Players in India

Company	Purpose	India staff
GE's Capital Services	Back-office work	16,000
GE's John Welch Tech Center	Product R&D	1,800
IBM Global Services	IT services, software	10,000*
Oracle	Software, services	6,000**
EDS	IT services	3,500***
Texas Instruments	Chip design	900
Intel	Chip design, software	1,700
J.P. Morgan Chase	Back office, analysis	1,200

\* By 2005

\*\* Unspecified

\*\*\* By 2004

Source: Company reports; Nasscom, Evalueserve

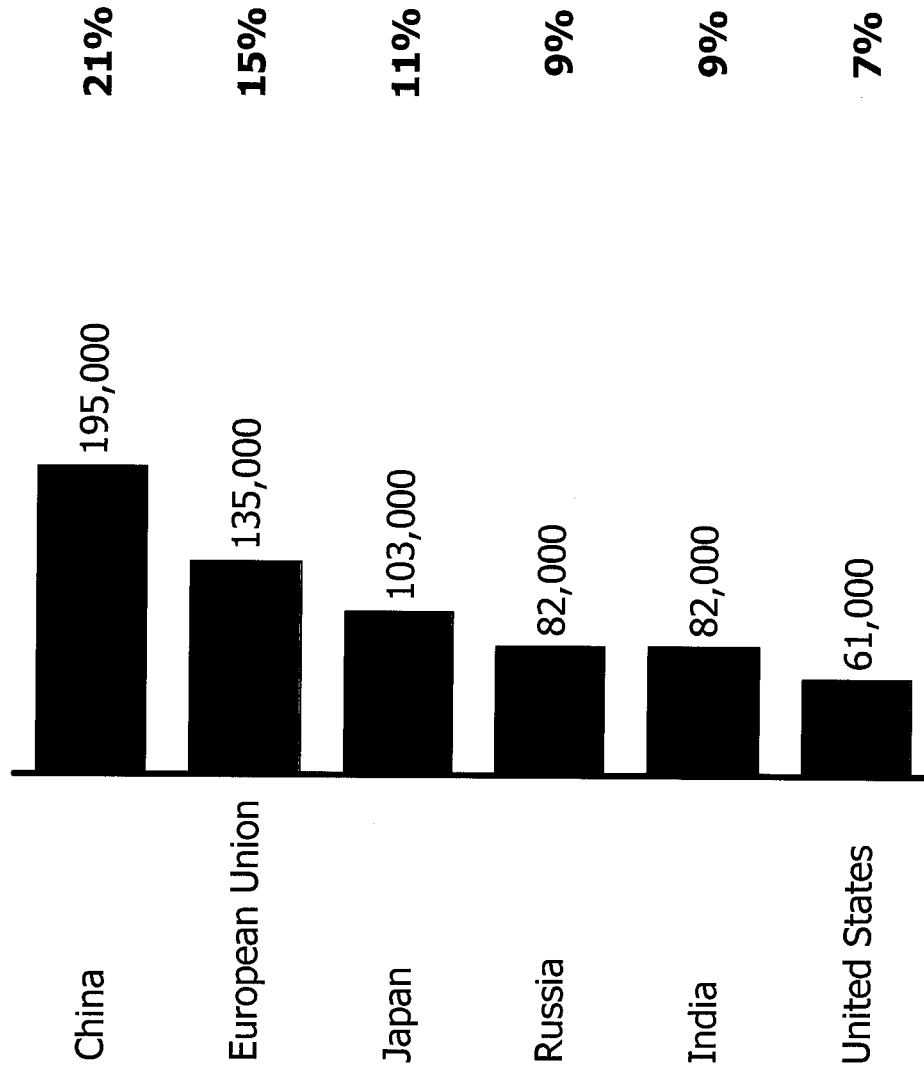


# Salary Comparisons

> Software Programmer, United States:	\$66,100
> Software Programmer, India:	\$10,000
> Mechanical Engineer, United States:	\$55,600
> Mechanical Engineer, India:	\$5,900
> IT Manager, United States:	\$55,000
> IT Manager, India:	\$8,500
> Accountant, United States:	\$41,000
> Accountant, India:	\$5,000
> Financial Operations, United States:	\$37,625
> Financial Operations, India:	\$5,500

Source: Paàras Group, 2002; International Labour Organization

# Bachelor Engineering Degrees Awarded Total and As a Percent of World, 1999



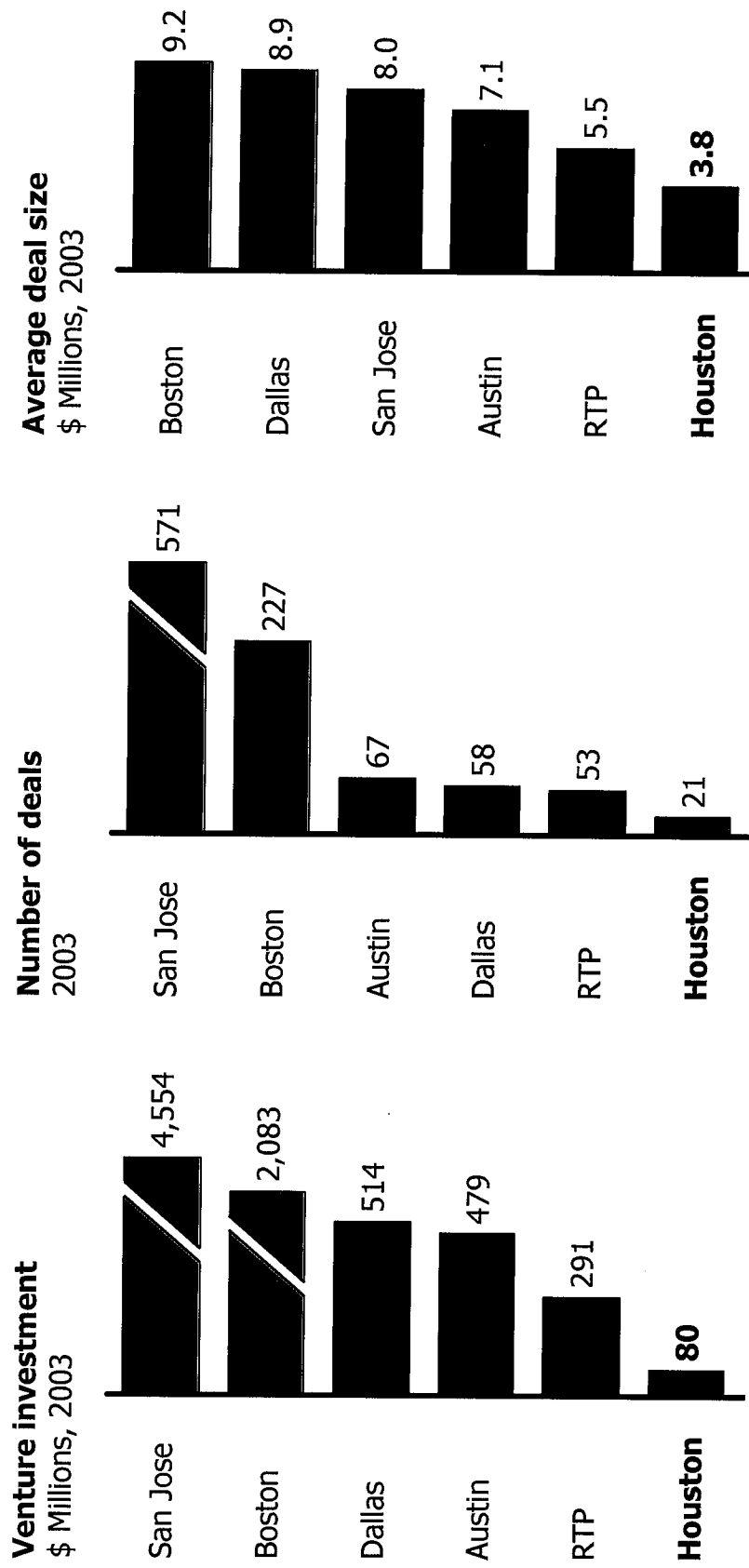
- > The U.S. percentage of worldwide engineering bachelor degrees will continue to fall
- > Universities outside the United States are becoming increasingly competitive
- > The United States dropped from a high of 76,200 in 1985 to 60,600 in 2002, declining 20%\*
- > China and the European Union grew by 37% and 22% between 1995 and 1999

\* U.S. Department of Education  
Source: U.S. National Science Foundation

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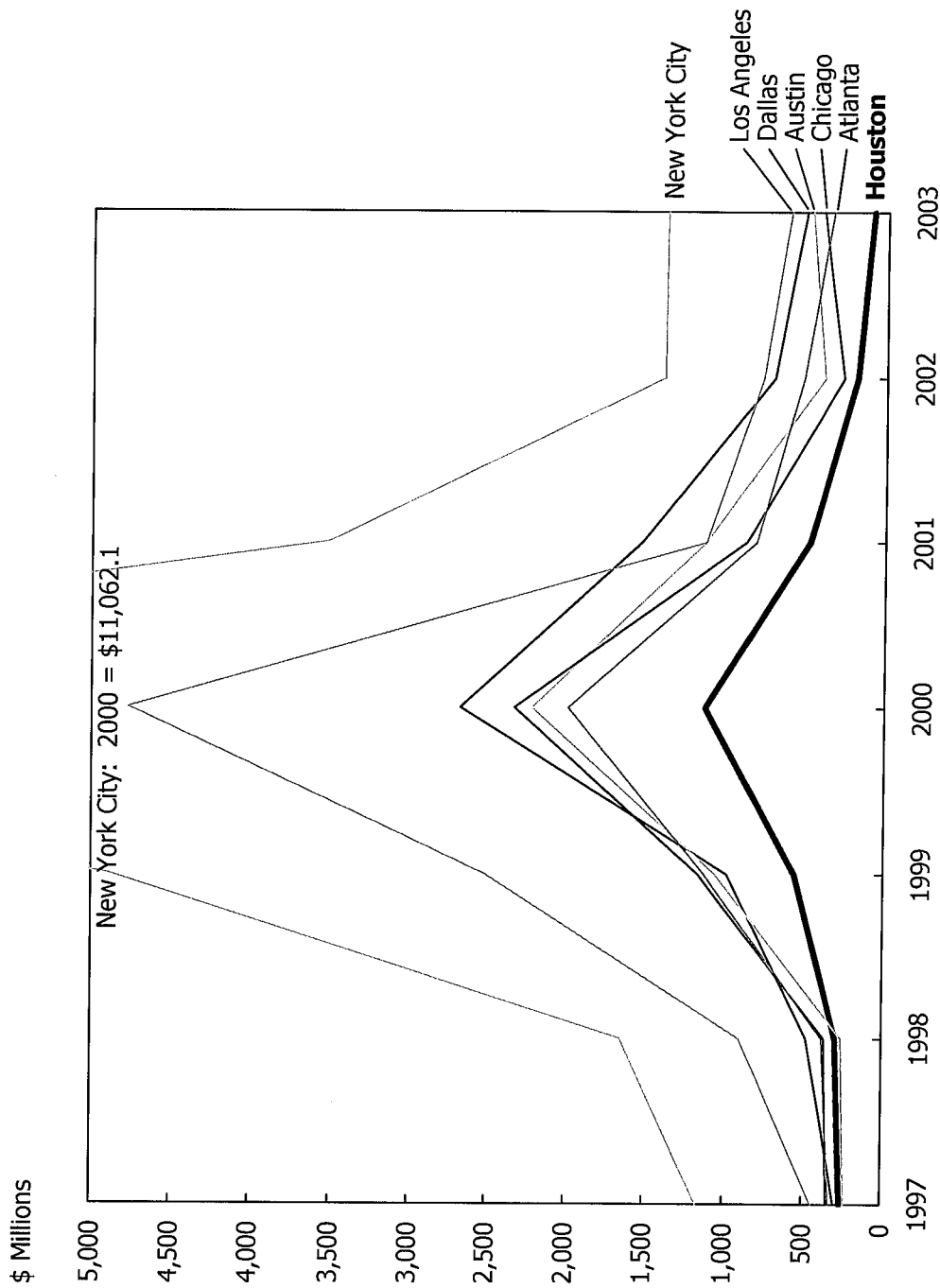
# Houston Fails to Attract Venture Capital Investment



- > Houston trails not only the major start-up hubs but also cities such as Dallas in terms of VC investment
- > The size of the start-up and/or degree of investment (avg. deal size) in Houston companies is also small

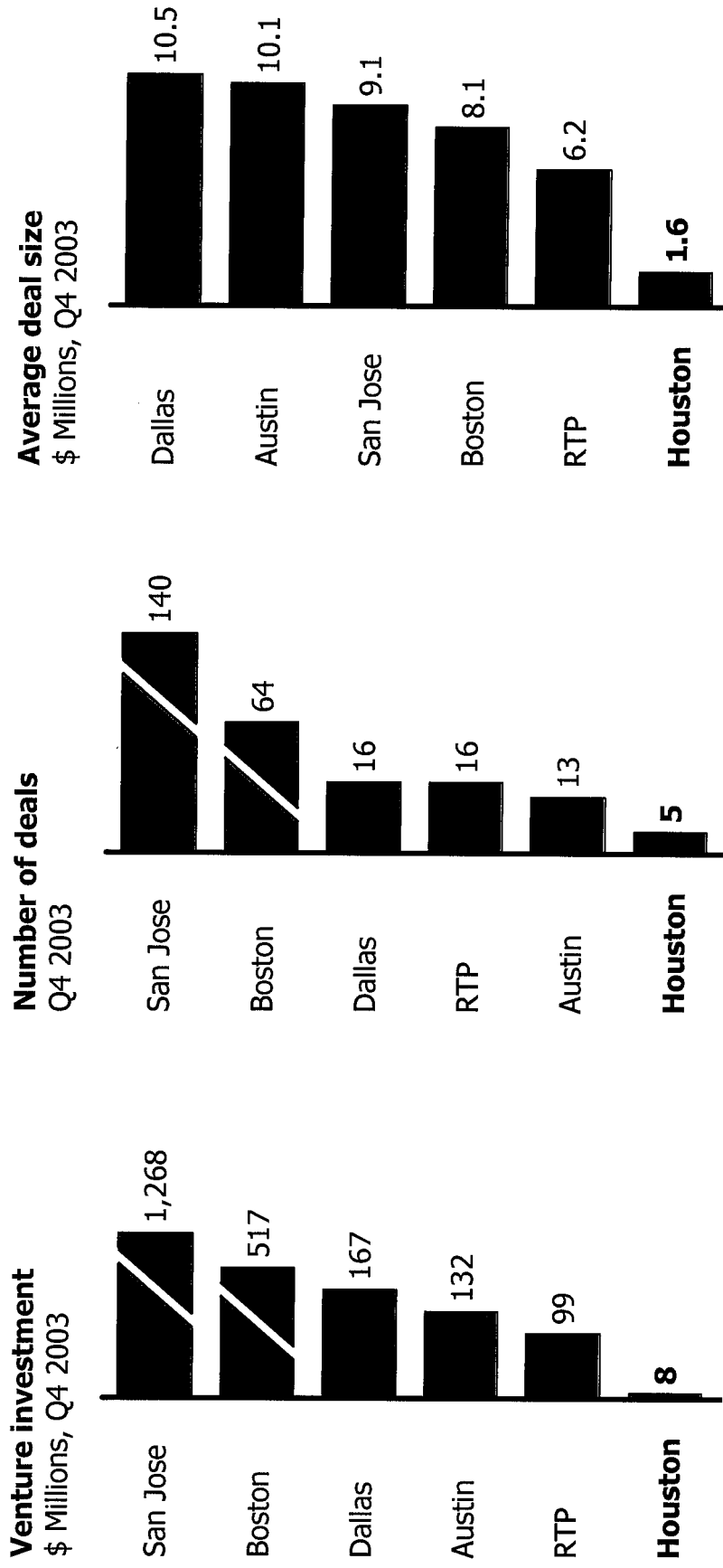
Source: Venture Economics

# Houston's Venture Capital Investment Has Been Far Below Other Major Cities in Recent Years



> Even in the boom year of VC investment, such as 2000, Houston was significantly below other major cities

# Recent Results Tell the Same Story

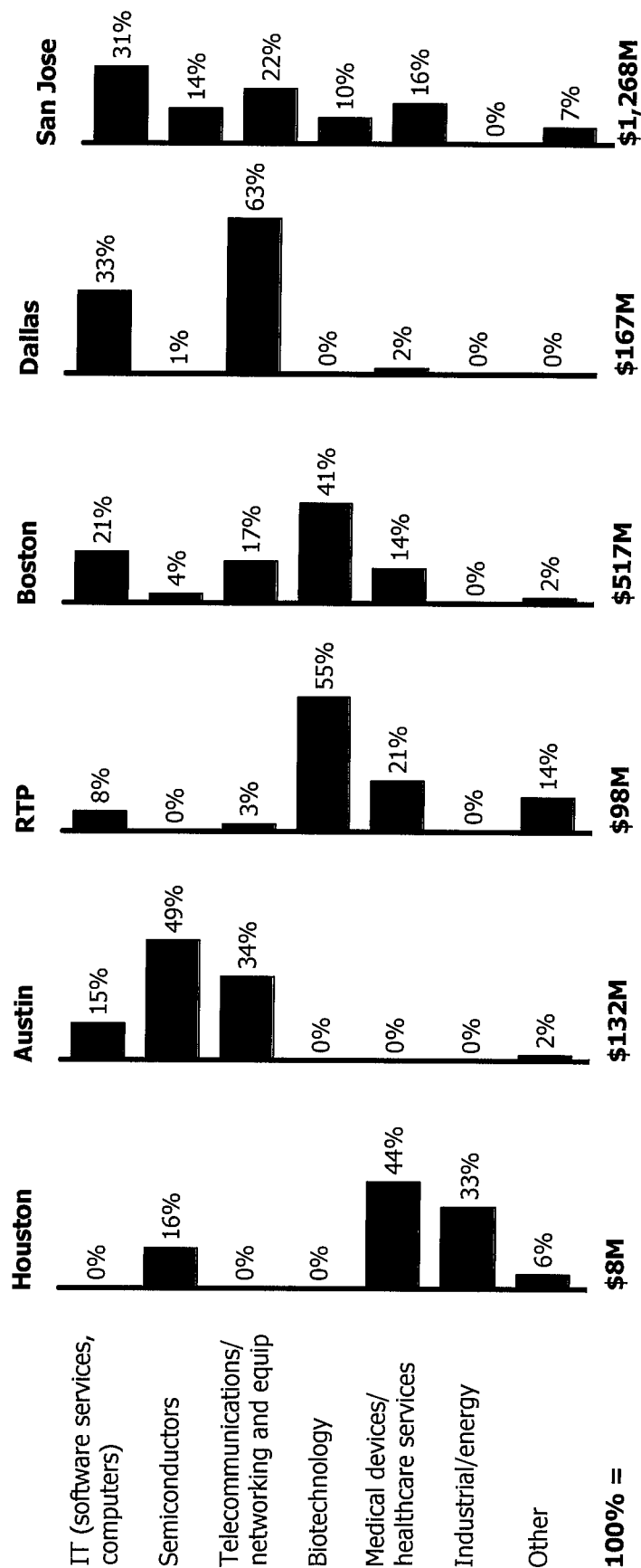


- > Q4 2003 figures provide the same outlook for Houston as the entire year
- > While average deal size in Q4 2003 increased for Austin and Dallas companies, average deal size for investments in Houston companies decreased significantly

Source: Venture Economics

# Venture Capital Investment In Metro Region Companies Varies Significantly Across Industry Sectors

Q4 2003 investment  
Percent



- > As expected, a sizable portion of investment in **Houston companies** was focused on **energy**, while investment in **Dallas focused on telecommunications and networking**
- > Although Houston is considered to have a strong bio-tech presence, the recent quarter showed **no investment in Houston bio-tech** companies; bio-tech investment in **Boston and RTP was significant**

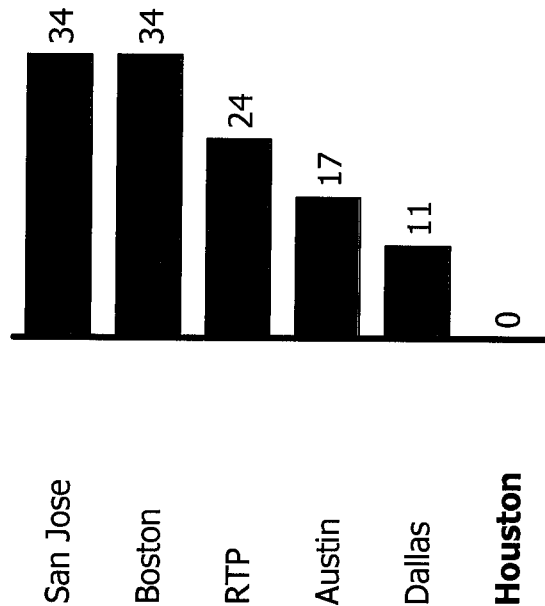
Source: Venture Economics

# Houston Attracts Very Little Investment From Local Sources

Where does the money come from?

Investment in Metro region companies by local funding source  
Percent of deals, Q4 2003

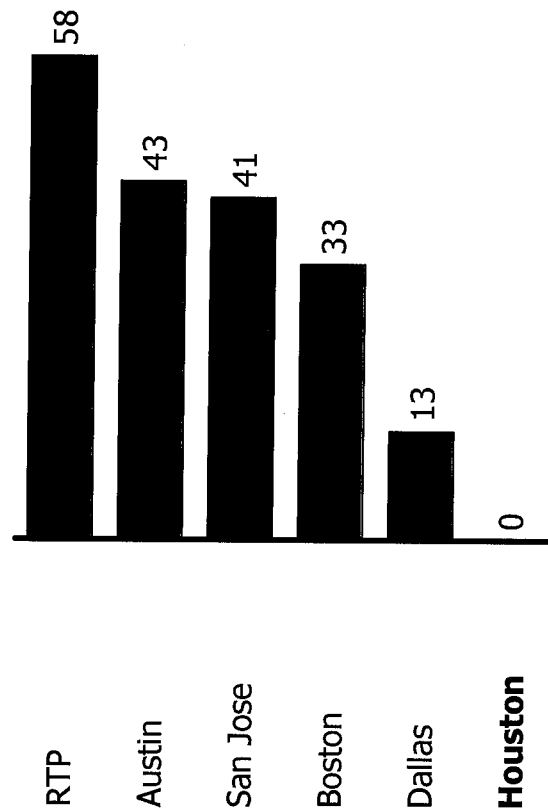
Metro region



Where does the money go?

Investment by local VC funds in local metro region companies  
Percent of deals, Q4 2003

Metro region



- > **Houston VC funds are not investing in local companies**, requiring local companies to seek funding from other sources
- > Houston companies unable to gather sufficient local capital may simply choose to **locate in other cities** such as Austin or Dallas

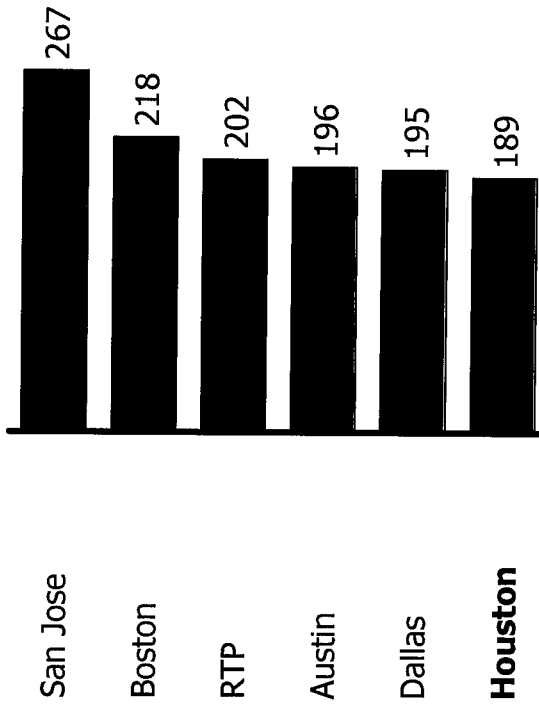
Source: Venture Economics



# Houston's Overall Wealth is Competitive

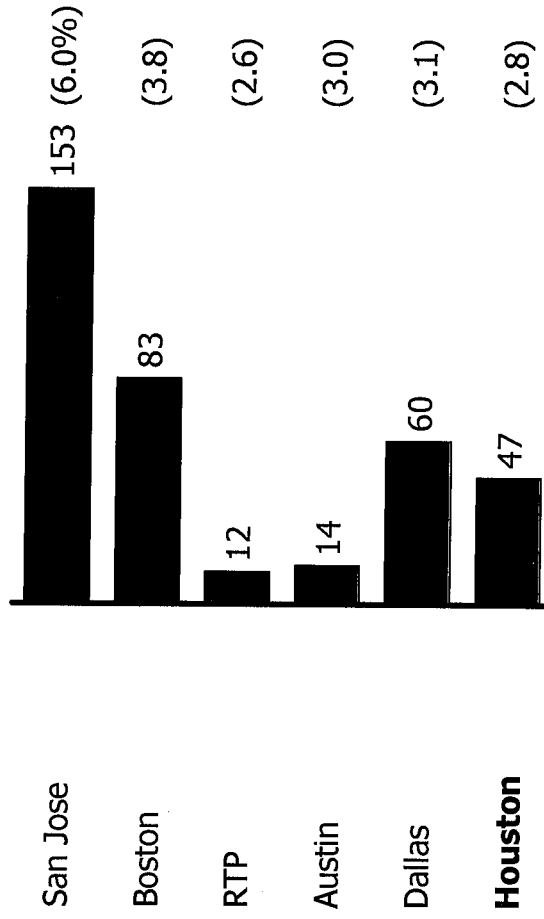
How wealthy is the metropolitan area?

**Metro region**      **Median household net worth**  
\$ Thousands, 1999



How many high income people are there?

**Metro region**      **High income (>\$200K) households**  
Thousands (percent of total), 1999

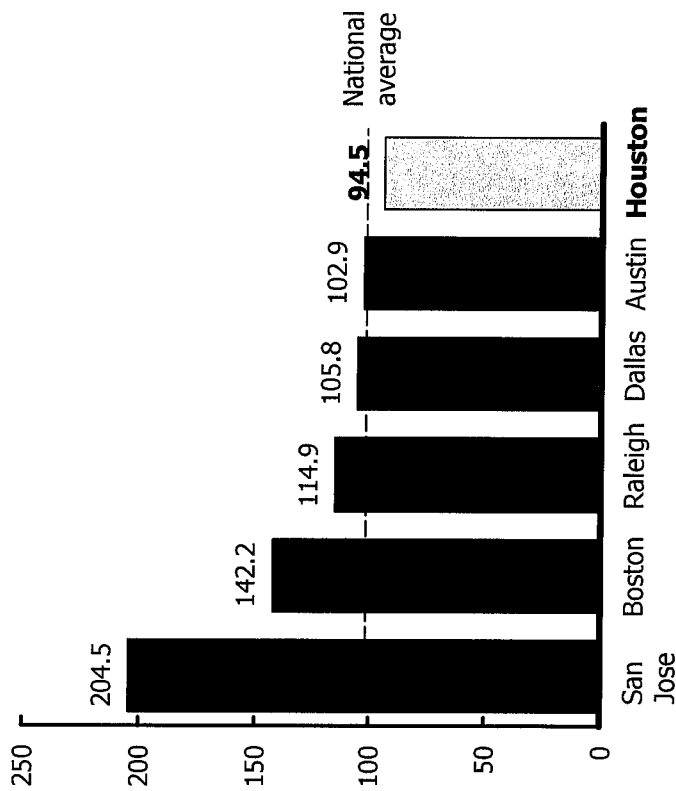


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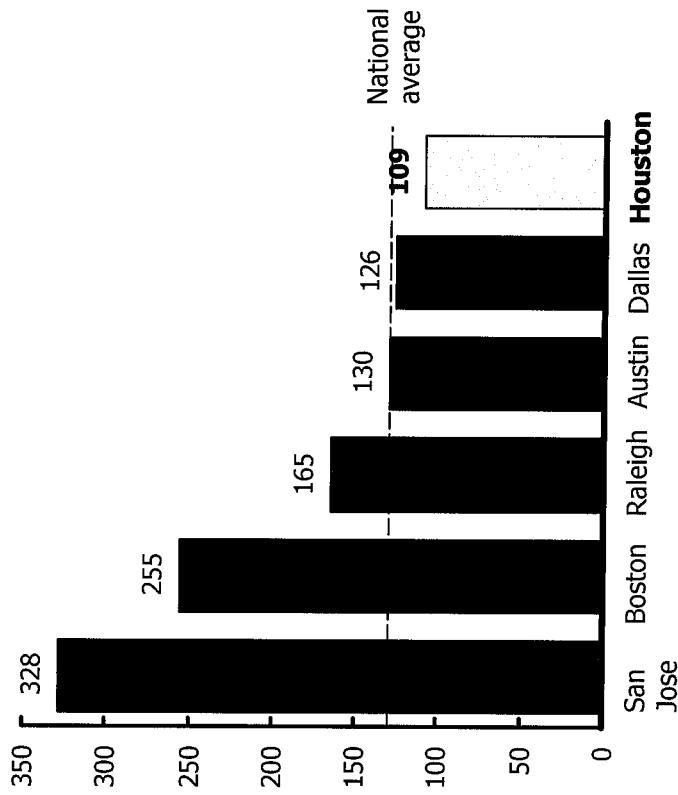
- > Overview of Houston employment and job creation
- > Current offshoring trends and statistics
- > Assessment/comparison of Houston's capital
- ➔ > **Assessment/comparison of Houston's business and policy climate**
- > Assessment/comparison of Houston's infrastructure

# While Houston Has an Advantage with Its Relatively Low Cost of Living . . .

Cost of living index\*



Median home price  
\$ Thousands



- > Of the selected cities, **Houston is the only city below the national average** in both cost of living and housing

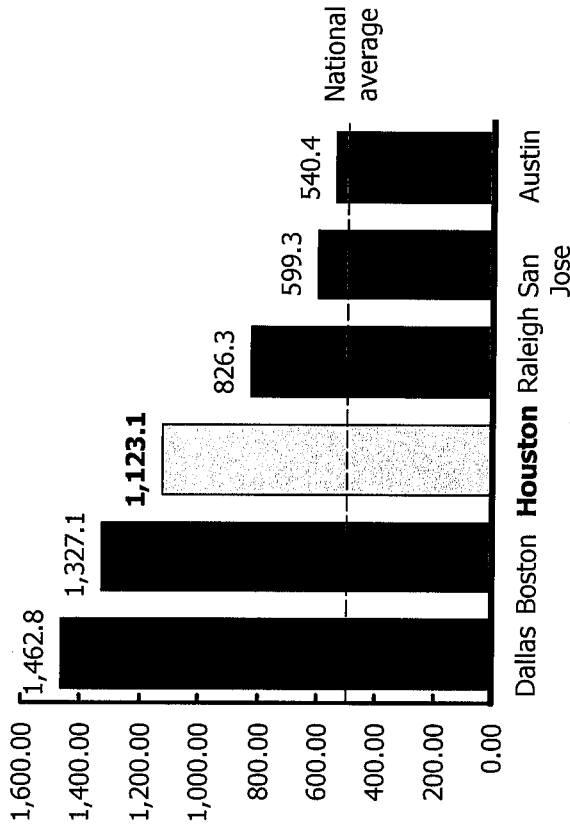
\* Overall cost of living index is weighted as follows: housing (30%), food and groceries (15%), transportation (10%), utilities (6%), health care (7%), and misc. expenses such as clothing, services, and entertainment (32%). State and local taxes are not included in any category

Source: CNN Money – Best Places to Live; MSN – House and Home

# ... the City Is Average in Other "Quality of Life" Aspects

## Violent crime\*

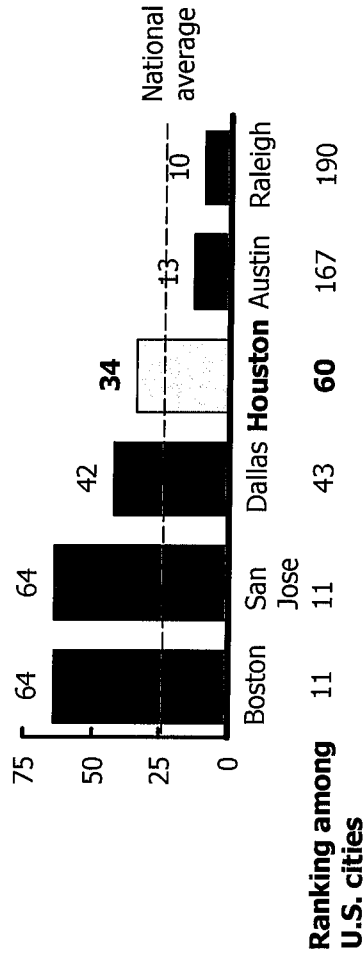
Total number of violent crimes per 100,000 residents



Houston's crime is higher than that of other tech hubs, but lower than some other major metros

## Leisure index

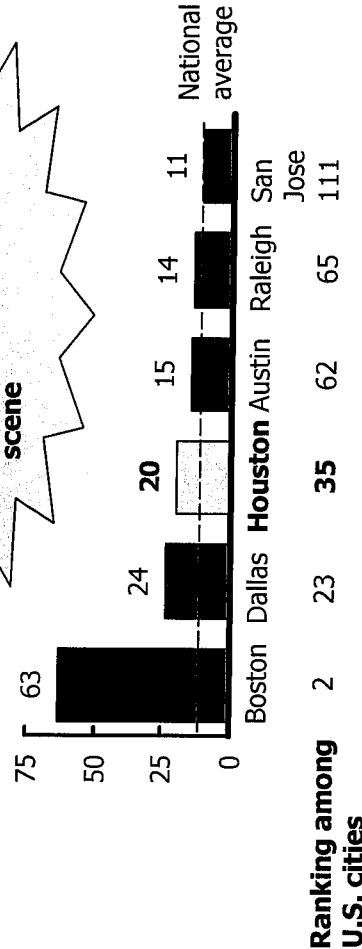
100 is best, 0 is worst



Ranking among U.S. cities

## Art index

100 is best, 0 is worst



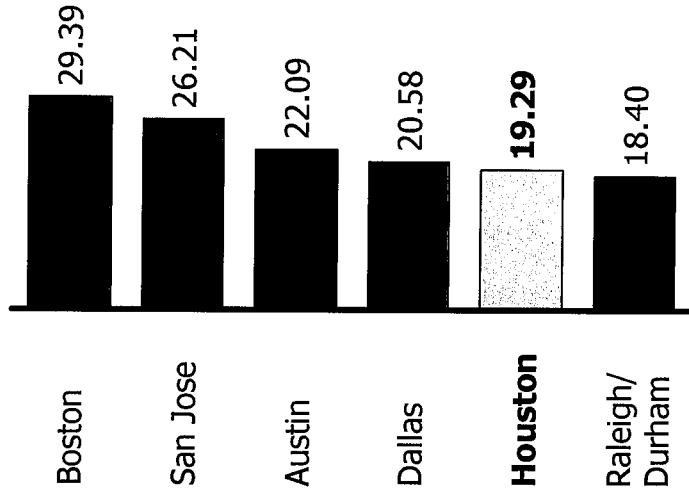
Houston rates average in terms of its leisure and art scene

Ranking among U.S. cities

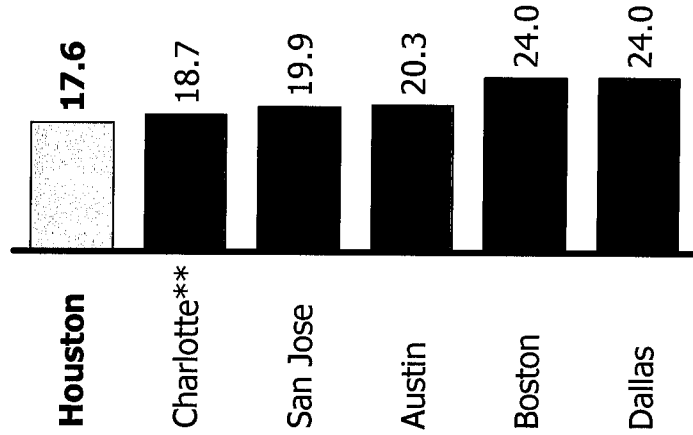
\* Violent crime defined as murder, rape, assault, and robbery  
Source: CNN Money – Best Places to Live; MSN – House and Home

# Office Real Estate in Houston is Not Significantly Cheaper than Other Cities

**Annual cost of office space\***  
\$ per square foot, 2004



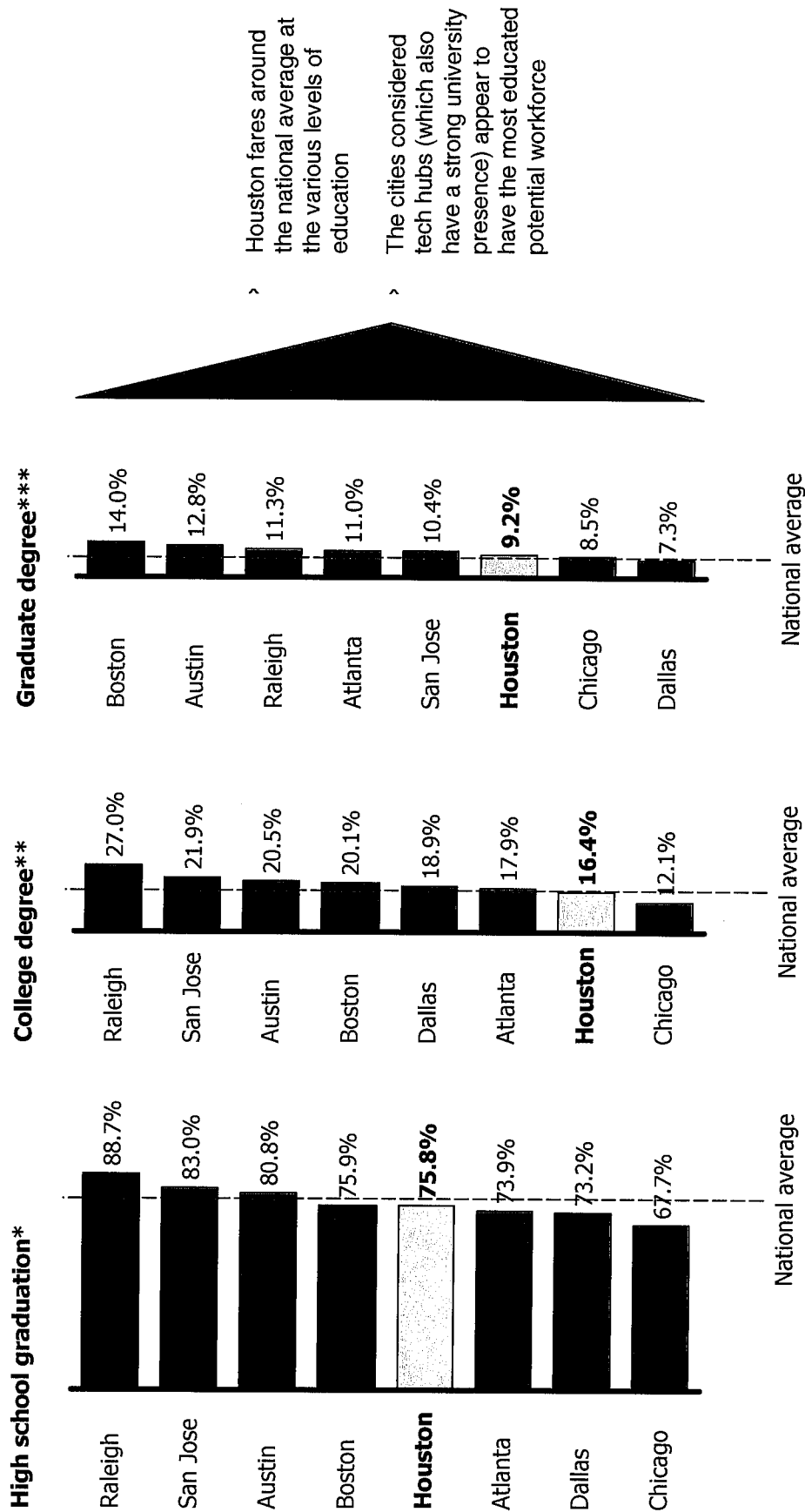
**Office vacancy rate\***  
%, Q4 2003



- > Houston's cost advantage may not be as great as we would have imagined
- > Houston is in relatively good shape on occupancy measures

\* Suburban office space  
 \*\* Charlotte used as proxy, data unavailable for Raleigh-Durham  
 Source: CB Richard Ellis

# Comparison of Education Level Across Major Cities



\* High school graduates: % of the area's population over 25 with high school diplomas or high school equivalency degrees (GEDs)

\*\* College degree – 4 year: % of areas' population over 25 with a bachelor's degree or other 4-year college degree

\*\*\* Graduate degree: % of area's population over 25 with a master's degree, Ph.D. or other advanced college degree

Source: MSN.com – House and Home

# Table of Contents

- > Overview of Houston employment and job creation
- > Current offshoring trends and statistics
- > Assessment/comparison of Houston's capital
- > Assessment/comparison of Houston's business and policy climate
- ➔ > **Assessment/comparison of Houston's infrastructure**

# Houston is Trailing Other Cities in Digital Infrastructure

Percentage of Adults With A Broadband Connection\*

Rank	City	%
4	Austin	31%
5	San Francisco/Oakland/San Jose	31%
7	Boston	29%
13	Raleigh/Durham	25%
18	Dallas/Fort Worth	22%
28	Atlanta	20%
<b>35</b>	<b>Houston</b>	<b>19%</b>
42	Chicago	18%

Most "Unwired Cities Rankings\*\*

Rank	City
1	San Francisco/Oakland/San Jose
4	Austin/San Marcos
11	Chicago
16	Atlanta
17	Boston
21	Dallas/Fort Worth
<b>26</b>	<b>Houston</b>
30	Raleigh/Durham

Percentage of Households Subscribing to Cellular Services

Rank	City	%
1	Atlanta	75%
3	Austin	72%
6	Dallas/Fort Worth	71%
10	San Francisco/Oakland/San Jose	70%
<b>14</b>	<b>Houston</b>	<b>70%</b>
23	Boston	68%
27	Chicago	68%
28	Raleigh/Durham	67%

Based on a variety of factors, **Houston's digital technology appears weaker** than both tech hubs and other major metros

\*

Percentage of adults who accessed the Internet in the past 30 days through a broadband connection

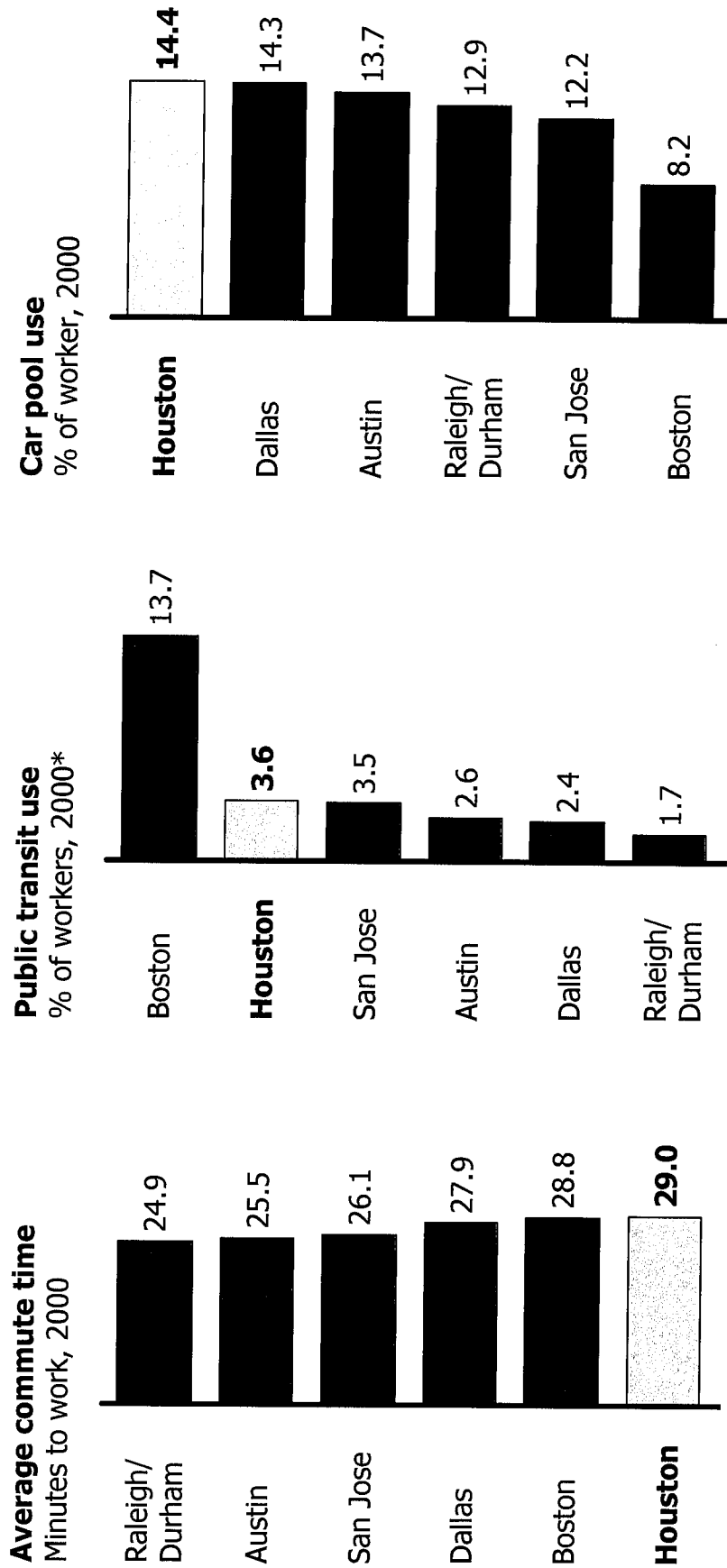
\*\*

Based on number of public & commercial wireless access points, local wireless networks, wireless email devices and Internet penetration

Source: Scarborough Research 2003, Intel Corporation Survey 2003, Beacon Hill Institute Metro Area & State Competitiveness Report 2003



# Houston Appears to Be Working to Improve Its High Level of Traffic

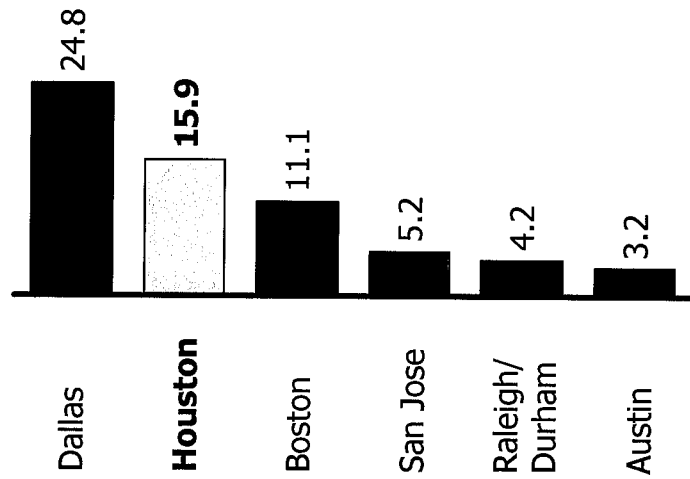


- > Houston's use of public transit ranks higher than we might expect, but still very low compared to cities such as Boston which is known for its public transportation system
- > Houston is a **leader in carpooling**, a response to the long drive time

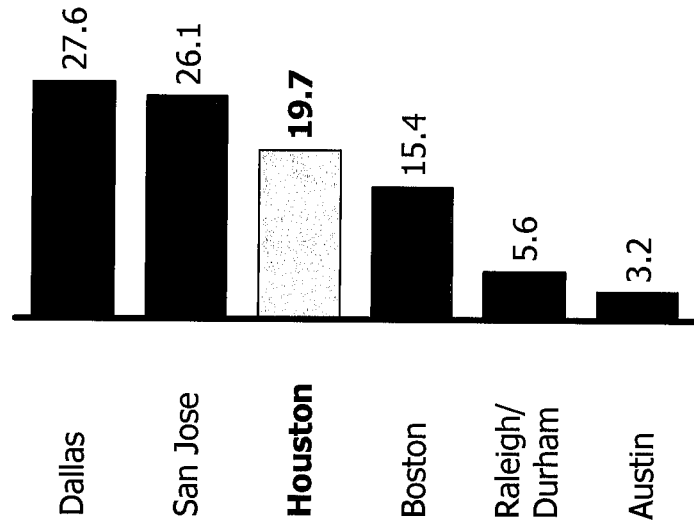
\* Both Houston and Dallas have made significant additions to their public transport systems since 2000  
Source: 2000 Census

# Air Travel Convenience Appears to be an Advantage with Respect to Other Cities

Primary airport passengers  
Millions, 2002



Airport passengers within metro area  
Millions, 2002



> Houston serves as a central hub for travel to many regions

Source: Department of Transportation

# **Mayor's Taskforce on Economic Development: Aerospace**

**June 15, 2004**

# Aerospace

## Current Trends and Forces Affecting Job Growth

### EMPLOYMENT/TALENT

#### *Excellent employment and extremely talented work force:*

- Bay Area Houston is home to 550 high tech businesses, which employ 26,595 workers \*\*
- Average Annual Population Growth 3.5% driven by High Tech jobs \*
- Average HH Income \$70,100 \*\*
- % Incomes above \$100K 18.3% \*\*
- % Adults with Bachelor's Degree 38% \*\*
- % of Johnson Space Center employees with a Bachelors Degree 85% \*
- Highly Skilled Workforce 47% \*\*
- Aerospace and Defense 16,695 employees
- Software and Computer Services 7,000 employees \*\*
- Biotechnology 2,900 employees \*\*
- 21% of private sector employment is in High Tech \*\*

### ENTREPRENEURSHIP

#### *Strong entrepreneurship and fertile base for future development:*

- Al-Razaq Computing Services, ARES Aerospace and Technology Services, Barrios Technology, BLACKHAWK Management Corporation, Cimarron, Critique Inc., DDMS Technologies Inc., Enterprise Advisory Services Inc. (EASI), Futron Corporation, GB Tech Inc., GeoControl Systems Inc., GeoLogics Consulting, Hernandez Engineering Inc., Implemetrics Inc., Interactive Medical Connections Inc., LINK Training & Testing Center, Metrica Inc., MRI Technologies, MTS Global Inc., Muniz Engineering Inc., Neptec International Inc., Peg Peterson & Associates, Rothe Joint Venture L.P., Space City Films Inc., SPACEHAB Inc., Systran, Trajen Aerospace, DSL, Cyberonics, Cyrospace

### RESEARCH, INNOVATION AND COMMERCIALIZATION

#### *Multiple research and innovation opportunities:*

- The small start-up business potential over the next several years looks very promising. The recently awarded National Laboratory to UTMB Galveston will provide cutting-edge research designed for path-breaking science to rapidly produce new therapies, vaccines and diagnostic tools for bio-defense and emerging infectious diseases. Start-ups often arise to seek local markets for intellectual assets. Bay Area Houston partners are poised to support the new large scale research effort and accommodate expected business expansions.
- Technology clusters in sub-industries like bio-technology, computing hardware and software, information storage and retrieval, measurement and controlling devices command a significant and growing presence estimated at \$275 million in sales. \*
- Primarily funded by the federal government programs, such as Small Business Innovative Research (SBIR), Space Alliance Technology Outreach Program (SATOP), Mid-Continent Technology Transfer.
- Linkage with NASA and Human Space flight
- Life science programs at UTMB Galveston, and National Space Biomedical Research Institute
- University of Houston Clear Lake Research Park

## **CAPITAL**

### ***Strong government funding, limited private capitalization:***

- Primarily US Government, with some commercial development such as SPACEHAB, Cyberonics, SkyCom

## **REPUTATION/MARKETING**

### ***World-class reputation with untapped marketing opportunities:***

- Acknowledged as healthy and growing industry cluster for aerospace, technology and related skill sets.
- Market primarily through industry contacts, leveraging partnerships with NASA, NASA Life sciences, UTMB, Texas A&M, University of Houston, and the Texas Medical Center.

## **INFRASTRUCTURE**

### ***Exemplary, asset driven:***

- Intellectual-people driven
- NASA/JSC Complex
- University of Houston Clear Lake
- Texas A&M University-Galveston
- University of Texas Medical Branch (UTMB)-Galveston

## **BUSINESS CLIMATE**

### ***Opportunities abound for economic development:***

- Technology and history are tightly interwoven at the Johnson Space Center (JSC) where astronauts are trained and US manned space flights are monitored. Drawn to the natural business development advantages flowing from JSC, which annually administers over \$4.2 billion in federal aerospace contracts, 52 contractors perform leading-edge technology managing the Space Shuttle, International Space Station, astronaut training, advanced human support technology, biomedical research and space medicine. Local spending level is at \$2.5 billion.
- Overall business climate, extremely positive, the new "Vision for Space Exploration" that supports a new federal vision for space exploration; return to the Moon, Mars and beyond as well as the strengthened political support to secure annual funding for these new NASA programs bodes well for the future of JSC and the local economy.
- The linkage between UTMB Galveston Bioterrorism, Life Sciences, NASA/JSC and the role it plays in homeland security and space exploration solidifies a strong economic base.
- Vast opportunities to expand Ellington Field as a Joint Military Reserve Base and numerous aerospace opportunities related to space exploration, including potential manufacturing and development of the future Crew Exploration Vehicle (CEV) and the supplier chain associated with that development.

# PRIORITIZATION OF CURRENT CHALLENGES

## 1. Marketing

### High Concentration of Expertise

- **With just 4.5% of the total jobs, Bay Area Houston represents:**
  - 92% of all Aerospace jobs in Houston
  - 17% of environmental service jobs
  - 16% of high tech jobs (>3x concentration)
  - 15% of Biotechnology jobs
  - 14% of Software & Computer Service jobs
- **Houston's rank (national) \***
  - Scientists & Engineers 5<sup>th</sup>
  - Talent (Bachelors degree and above) 12<sup>th</sup>
  - High technology industry 15<sup>th</sup>
- **Professional & Technical Workers** 17<sup>th</sup>
- **Texas rank**
  - Scientists & Engineers 2<sup>nd</sup>
  - Talent (Bachelors Degree and above) 4<sup>th</sup>
  - High Technology Industry 2<sup>nd</sup>
  - Professional & Technical Workers 2<sup>nd</sup>

## 2. Capital

- **Venture capital dollars**
  - Being developed by McKinsey & Company
- **Number of top early stage venture capital firms**
  - Being developed by McKinsey & Company

## 3. Entrepreneurship

- **Number of Small Minority Business establishments**
  - JSC contracts with 83 small businesses valued in excess of \$145 million, this is a conservative number because it does not reflect purchase orders valued at \$100,000 or less
- **Number of IPO's**
  - Cyberonics, Eagle Broadband, Benchmark

# RECOMMENDED ACTIONS FOR INCREASING JOB GROWTH

## 1. Marketing

**CAPITILIZED ON HOUSTON'S POSITION AS A PREFERRED AEROSPACE CLUSTER BUSINESS LOCATION, THE FOLLOWING PRIORITIES FROM THE CITY OF HOUSTON ARE CRITICAL IN PUTTING THE RIGHT MARKETING MESSAGE IN FRONT OF THE RIGHT AEROSPACE EXECUTIVES:**

- **Priority Request No. 1 of City of Houston:** For purposes of annual market research, development of collateral marketing pieces, and sophisticated project proposal response development....\$100,000.
- **Priority Request No. 2 of City of Houston:** For purposes of development and implementation of solicited and un-solicited bi-monthly executive level corporate headquarter meetings with aerospace firms to include the mayor of Houston, [Harris county commissioner precinct two?] one\two local related industry executives, and 2/3 aerospace market economic development team officials...\$50,000 which could be culled to \$25,000 to the extent that some team members bear their own travel costs.

## 2. Capital

**POSITION HOUSTON TO TAKE ADVANTAGE OF THE \$100 BILLION ANNUAL AEROSPACE MARKET, THERE ARE TWO PRIORITIES WHICH WOULD ACCELERATE AEROSPACE JOB CREATION IN THE CITY OF HOUSTON.**

- **Priority Request No. 1 of City of Houston:** Creation of the Bay Area Houston Aerospace Authority at Ellington Field. Utilizing city owned property at the Houston Airport System site; this non-profit entity would have the legal capacity to issue upwards of \$1 billion in bonds to be used for construction\fee title ownership\maintenance of aerospace facilities. Debt service for such facilities would be paid through long term [10-20 year] lease-back agreements with aerospace companies. The market would primarily be aircraft assembly\component manufacturing and non-aircraft defense and electronics related hardware.
- **Priority Request No. 2 of City of Houston:** Construction of standard design high bay facilities would be in the nature of a GO\CO, government owned\ company operated structure which also would enable shorter term [5-10 year] lease-back agreements, and is the type of facility that aerospace companies have a historical record of utilizing first before looking for capital for construction of a new facility. These facilities could handle federal/private industry contracts for all types of aerospace fabrication as well as major aircraft modification and maintenance operations.
- **Priority Request No. 3 of City of Houston\State of Texas:** Construction of Texas Highway 3 on\off access from north side of Ellington Airport to Beltway 8.

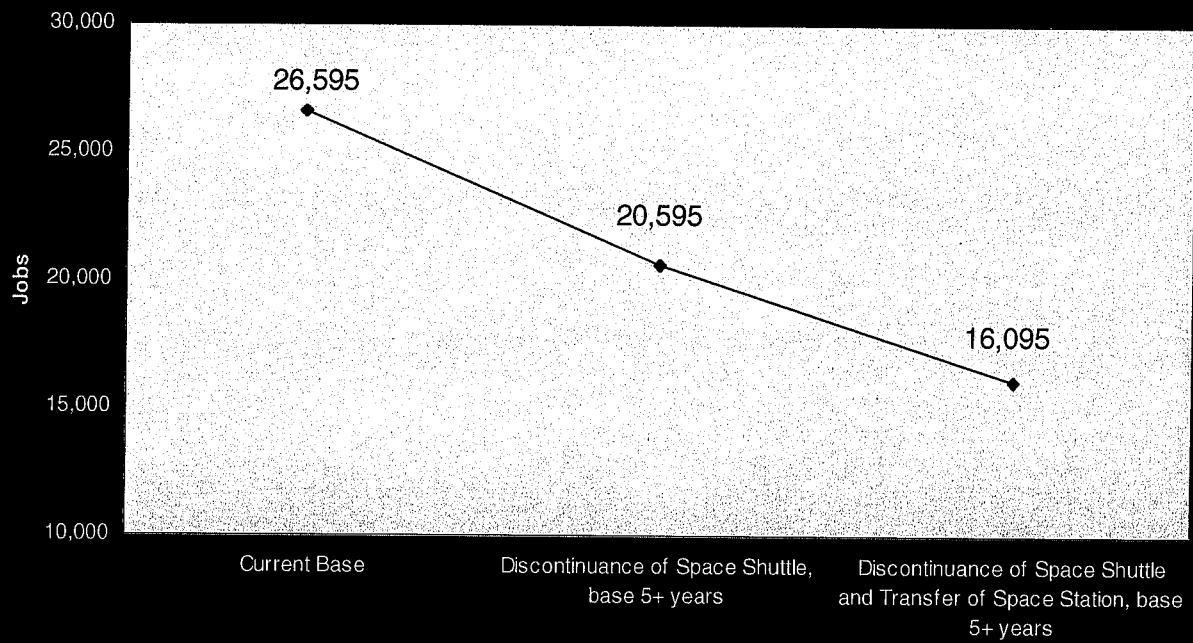
## 3. Entrepreneurship

- **Priority Request No. 1 of City of Houston:** Assist in attracting and developing private capital Angel network, venture capitalist (private equity).
- **Priority Request No. 2 of City of Houston:** Assist in forging partnerships between institutions; NASA/JSC, UTMB, Texas Medical Center.
- **Priority Request No. 3 of City of Houston:** Assist in developing the University of Houston Clear Lake Research Park

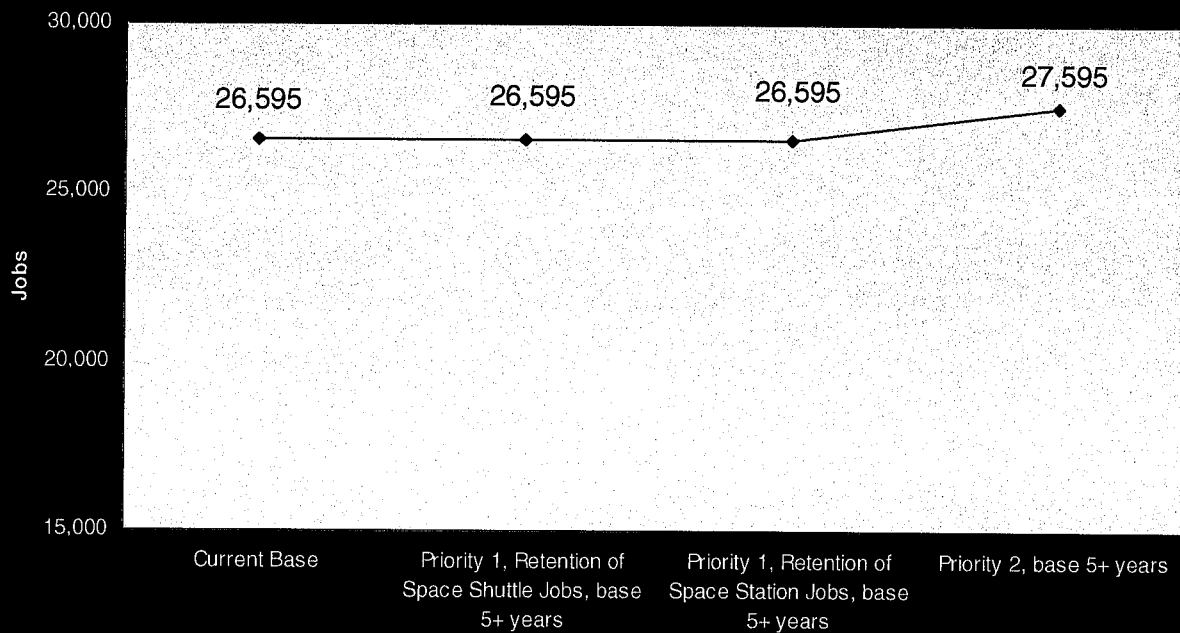
\* Data obtained from Dr. Bob Hodgins, Director, Center for Economic Education University of Houston Clear Lake

\*\* Data obtained from Angelou Economics & technology-based economic development

### Effect of Recommended Programs on Job Growth Based on Threats

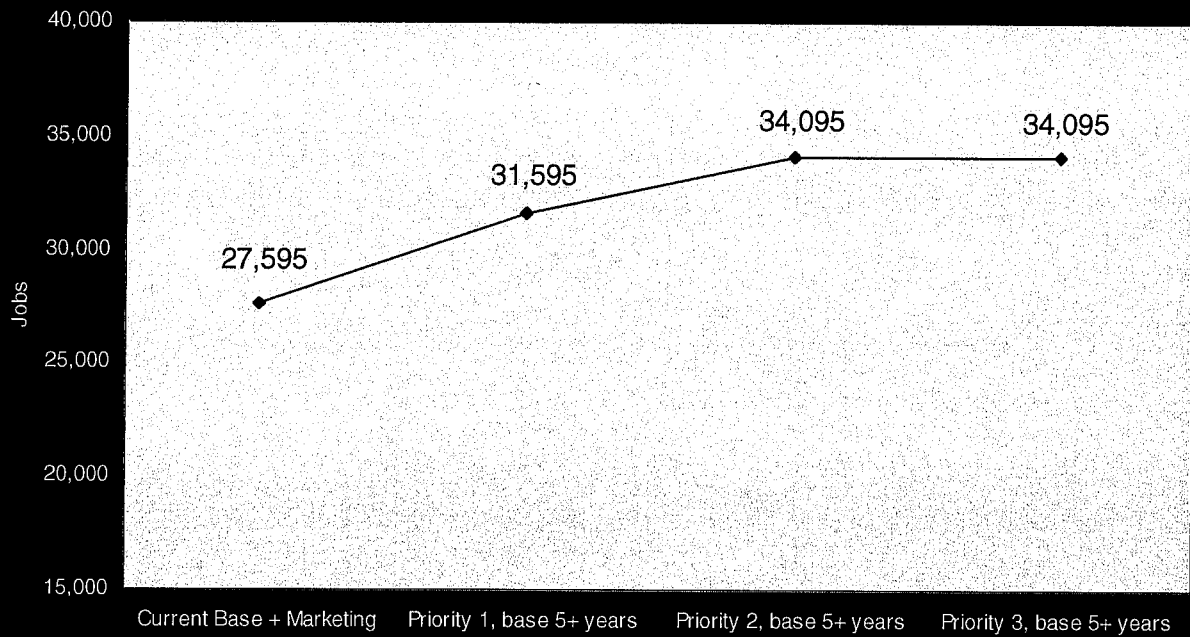


### Effect of Recommended Programs on Job Growth Based on Priority 1, Marketing

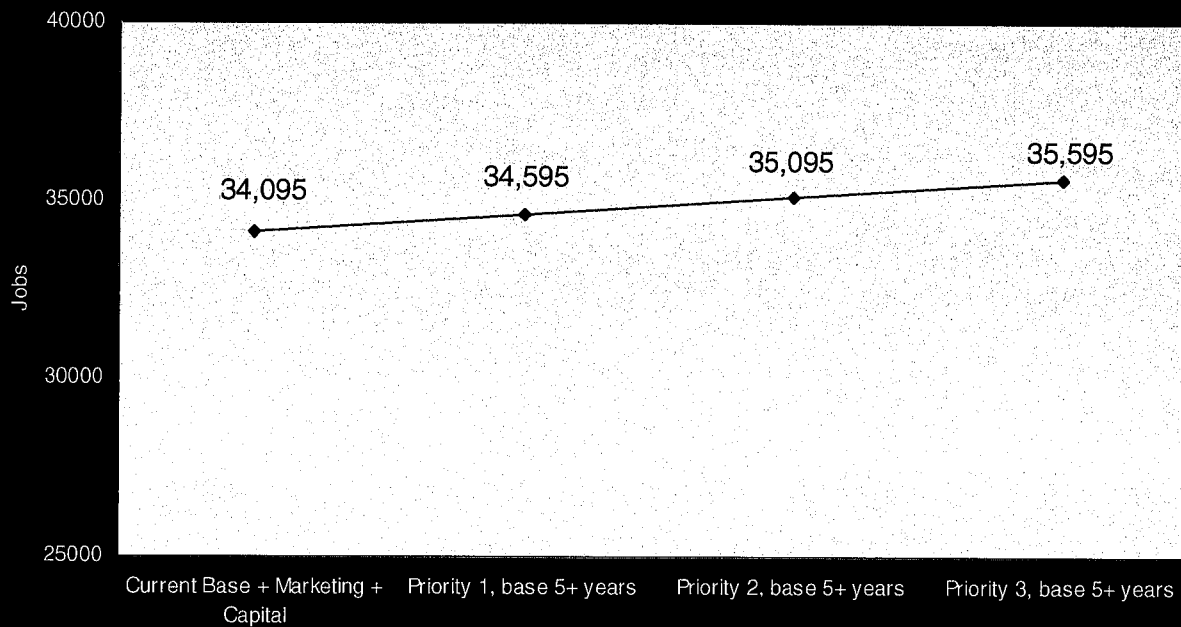




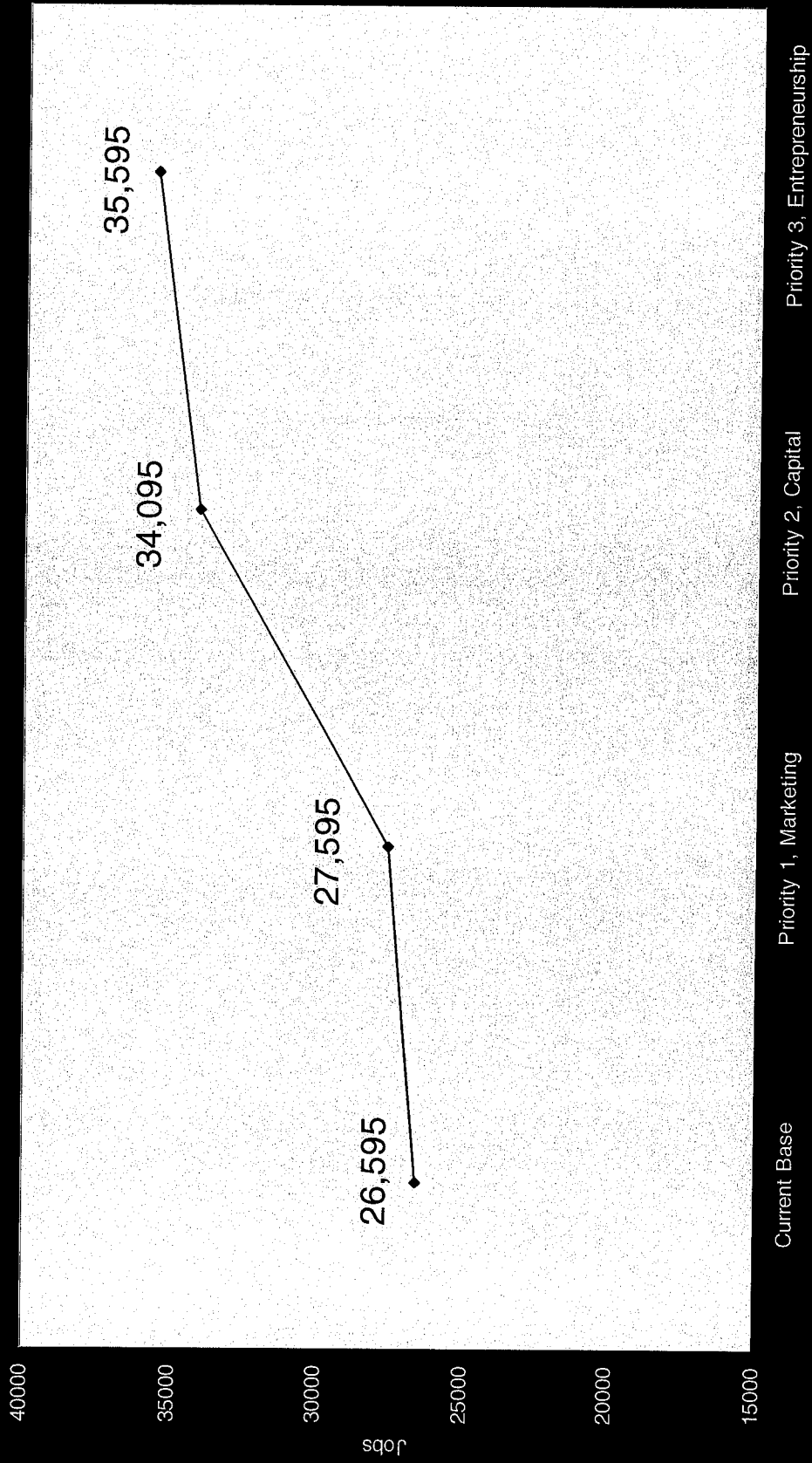
### Effect of Recommended Programs on Job Growth Based on Priority 2, Capital



### Effect of Recommended Programs on Job Growth Based on Priority 3, Entrepreneurship



# Effect of Recommended Programs on Job Growth, Summary



# **Mayor's Taskforce on Economic Development: Existing and Emerging Businesses**

**June 15, 2004**

# Outline

- > Objectives and challenges
- > Target market
- > Problems identified
- > Recommendations
  - Brownfield Projects
  - Immigrant Investments
  - Grant Center
  - Community-based education and mentoring
- > Summary
- > Supporting information

# Objectives and Challenges

## Objectives

- > Identify the problems facing emerging and existing businesses
- > Identify tactical solutions to address them
- > Quantify the expected benefits (primary jobs)

## Challenges

- > Dispersed, heterogeneous businesses
  - Consumer goods (manufacturers, wholesalers, retailers)
  - Consumer services (basics, luxuries, urban, suburban, rural)
  - Business goods (manufacturers, wholesalers, retailers)
  - Business services (basic and professional services)
- > Heterogeneous ethnic groups
  - African-American, Hispanic, Indian, Asian
- > Few common denominators (common needs)
- > Require strategic (vs. tactical) solutions

# Target Market

**We defined the market for Emerging and Existing Businesses ("EBs") to include companies that**

- > Have less than 100 employees
- > Create Primary (vs. Secondary) jobs
  - Products or services are sold outside of Houston
- > Are not addressed by other industry-specific task forces (IT, Bio, Energy, Aerospace, Tourism, etc.)

**Our target market is estimated to include\*:**

- > 30,000 EBs in primary job industries (35% of total companies)
- > 334,000 primary jobs within EBs (20% of total employment)

\* Source: U.S. Census Bureau 2001. See appendix for supporting calculations and list of Primary (vs. Secondary) industries

# Problems We Identified

## **Common to all businesses**

- > Lack of business knowledge and experience
  - Many entrepreneurs have limited education
  - Few have advisors and mentors
  - Many are new to Houston
  - Many are new to America
- > Limited awareness of where to go for assistance
  - Many programs exist to help businesses
  - Most are underutilized

## **Other problems (opportunities)**

- > Underutilized federal programs
  - Encourage direct investment in new companies
  - Provide grant funding for specific types of companies
- > Underutilized real estate and other physical resources
  - Remediated sites (viable but unused)

# Recommendations

## **The programs recommended are intended to**

- > Help launch new EBs
- > Help EBs grow

## **Recommended programs**

- > Brownfield Projects
- > Immigrant Investment programs
- > Grant Center
- > Community-based education and mentoring



# Brownfield Projects

**Opportunity:** utilize remediated real assets owned by the city

## Requirements

- > City would work with third parties (e.g., colleges, non-profits, companies) to utilize remediated assets owned by the City
- > City would provide the land
- > Partners would provide the capital
- > Oversight of the program to be provided by liaison to the Mayor's office

**Expected costs: \$40,000 annually (City's share: \$20,000)**

- > Development and construction funds provided by Partners
- > 0.5 FTE to serve as liaison and administrator of the program (Mayor's staff)
- > Costs to be shared by ethnic Councils and Chambers (\$5K from each)

## Expected economic impact

- > Primary jobs: 6-8 seasonal jobs per project (assume 4 projects per year = 28)
- > Secondary jobs: 6-8 based per project (assume 4 projects per year = 28)
- > Other benefits: improve neighborhoods, property values, community relationships

**Example: Redevelopment of the Milby Bus Barn**

- > City-owned property, to be redeveloped and used by HCCS
- > Needs to be decided by the City to HCCS
- > Expected to create 5-10 primary jobs, 10+ secondary jobs

# Immigrant Investments

## **Opportunity: attract investment in new businesses by promoting and supporting an Immigrant Investment program**

- > Federal law provides immigrant visas to individuals that invest \$500K and create 10 new jobs in an economically deprived or rural area

## **Requirements**

- > Establish a liaison in Mayor's office to promote the program
- > Facilitate compliance with designation of economically deprived areas
- > Create information and brochures to provide for mailings, trade missions, etc.
- > Coordinate with GHP, other various Chambers, Mayor's Advisory Committee, Sister Cities, America Leadership Forum, and other organizations

## **Expected costs: \$50,000 annually (City's share: \$10,000)**

- > Primary costs would be administrative (liaison on Mayor's staff)
- > Some printing/marketing expense
- > Costs to be shared by ethnic Councils and Chambers (\$10K from each)

## **Expected economic impact**

- > Primary jobs: 10 for every \$1M invested (assume 5 per year = 50)
- > Secondary jobs 4 for every \$1M invested (assume 5 per year = 20)
- > Other benefits: enhance Houston's image as progressive city

# Grant Center

## **Opportunity: help businesses get federal grants and low-interest loans**

- > City would work with other organizations to develop a virtual resource center to advise and assist companies eligible for grants or low rate loans

## **Requirements**

- > The Center would maintain and make available its database of grants and loan programs to qualifying companies (web-accessible)
- > The Center would also have a network of grant writers to assist companies

## **Expected costs: \$100,000 annually (City's share: \$20,000)**

- > 2 FTEs to oversee development and operations (housed at UHSBDC)
- > \$10K to develop Web site and marketing materials
- > Costs to be shared by ethnic Councils and Chambers (\$20K from each)

## **Expected economic impact**

- > Primary jobs: 5-6 for each new business (assume 20 per year = 125)
- > Secondary jobs: 2-3 for each new business (assume 20 = 50)
- > Other: enhance Houston's image for minority and women-owned businesses

# Community-Based Education and Mentoring

## **Opportunity: provide education and mentoring within each community**

- > Roundtables to help entrepreneurs learn from mentors (and each other)
- > Workshops held by bankers, accountants, lawyers, etc. to teach entrepreneurs how to get started, get a loan, keep their books, etc.
- > Orientation programs to help immigrants acclimate and become productive

## **Requirements**

- > City would work with minority Chambers/Councils to develop program, recruit leaders and oversee results
- > Business leaders from each community would serve as mentors, roundtable leaders, orientation advisors (see attached org chart)
- > Business service providers would develop and deliver educational workshops

## **Expected costs: \$100,000 annually (City's share: \$20,000)**

- > To cover planning, administrative, marketing costs
- > Costs to be shared by ethnic Councils and Chambers (\$20K from each)

## **Expected economic impact**

- > Primary jobs: 6 for each success (assume 20% of 120 companies = 150 jobs)
- > Retained jobs (reduce failure rate): 4 jobs at 20% of the 120 participating companies = 100 jobs)
- > New secondary jobs: 2-3 annually for each success (assume 20% = 70 jobs)

# Summary

Summarized below are the estimated costs and results for these programs

Program	Cost \$K*	Primary jobs per year	Secondary jobs per year	Primary jobs - 5 years**	Secondary jobs - 5 years**	Jobs per \$1,000 investment
Brownfield Projects	\$20	28	28	171	171	3
Immigrant Investment programs	10	50	20	305	122	9
Grant Center	20	125	50	763	305	11
Mentoring, education, orientation	20	250	70	1,526	427	20
<b>Total</b>	<b>\$70</b>	<b>453</b>	<b>168</b>	<b>2,766</b>	<b>1,026</b>	<b>11</b>

\* City's share after sharing costs with ethnic chambers and councils

\*\* Assumes 10% growth in number of jobs created each year

## Supporting Information

- > List of Partner Organizations
- > List of Brownfield Projects
- > Mentoring – education program overview/org chart
- > Market analysis and supporting data

# Partner Organizations

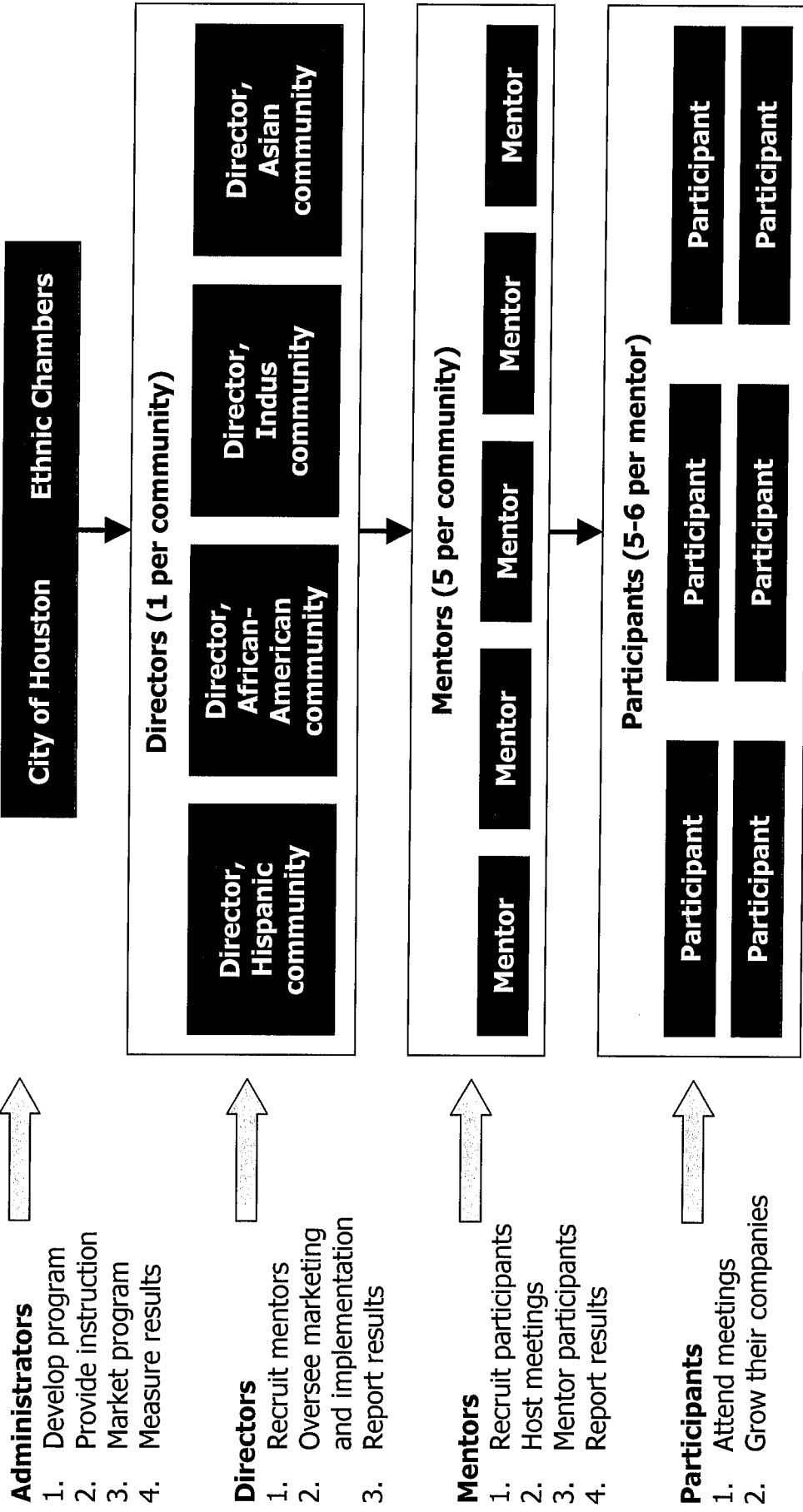
- > Greater Houston Partnership
- > University of Houston Small Business Development Center (SBA)
- > Texas Manufacturing Assistance Center
- > Houston Minority Business Council
- > Houston Hispanic Chamber of Commerce
- > Houston Asian Chamber of Commerce
- > (Is there an African-American Chamber?)

# Brownfield Projects

- > There are 100+ brownfields that currently exist
- > Examples of successful developments on brownfield land include
  - Minute Maid Park
  - Wildcat Golf Course



# Mentoring/Education Org Structure



# Market Analysis

Summarized below is an overview of our target market

Harris County Employment (2001)	Total	Percent of total
> Total number of companies	85,205	100%
> Total employment	1,682,264	100%
> Number of SMBs (companies <100 employees)	82,449	97%
> Number of employees in SMBs*	929,078	55%
> Average number of employees per SMB	11	
> Number of SMBs in Primary Job industries**	37,095	44%
> Less: duplication allowance (IT, Bio, Energy, etc.)	20%	
> Target market: companies	29,676	35%
> Target market: jobs (assume 11 per company)	334,404	20%

\* Based on average number of employees within each range (e.g., 1-4, 5-9, 10-19, 20-49, etc.)

\*\* Formula: number of SMBs in Primary Industries x Number of Employees per SMB

Source: U.S. Census Bureau, 2001 County Business Pattern report

# Supporting Data

## Primary Job Industries

- > Forestry, fishing, hunting
- > Mining
- > Construction
- > Manufacturing
- > Wholesale trade
- > Transportation and warehousing
- > Information
- > Finance and insurance
- > Professional, scientific, and technical services

## Secondary Job Industries

- > Retail trade
- > Real estate and rental and leasing
- > Management of companies and enterprises
- > Admin, support, waste management, remediation services
- > Educational services
- > Healthcare and social assistance
- > Arts, entertainment, and recreation
- > Accommodation and food services
- > Other services (except public administration)
- > Auxiliaries (corporate and regional management)
- > Utilities
- > Unclassified establishments

# Supporting Data

Summarized below is the number of companies within each industry, based on the number of employees within each company

Industry code description	Companies	1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1000+
<b>Total</b>	<b>85,205</b>	<b>43,355</b>	<b>16,160</b>	<b>11,196</b>	<b>8,518</b>	<b>3,220</b>	<b>1,916</b>	<b>528</b>	<b>196</b>	<b>116</b>
> Forestry, fishing, hunting, and agriculture support	49	40	3	2	3	-	-	1	-	-
> Mining	918	516	120	101	89	39	30	17	2	4
> Construction	5,509	2,702	997	750	599	241	162	29	14	15
> Manufacturing	4,220	1,373	727	709	732	339	241	64	28	7
> Wholesale trade	7,338	3,572	1,499	1,140	727	253	110	29	4	4
> Transportation and warehousing	2,294	1,020	391	321	270	140	100	32	12	8
> Information	1,485	690	237	189	183	93	67	17	4	5
> Finance and insurance	5,453	3,140	1,008	626	437	145	58	21	12	6
> Professional, scientific, and technical services	11,130	7,413	1,606	1,030	630	253	128	48	14	8
> Retail trade	11,904	5,849	2,727	1,603	976	373	320	46	9	1
> Utilities	279	99	56	35	32	24	20	10	3	-
> Real estate and rental and leasing	4,380	2,629	950	483	222	55	30	6	5	-
> Management of companies and enterprises	1,037	380	142	142	135	73	78	41	34	12
> Admin, support, waste management, remediation services	4,709	2,315	725	548	507	274	220	78	25	17
> Educational services	839	372	146	130	117	50	13	7	2	2
> Health care and social assistance	8,021	4,012	1,991	1,058	601	171	112	37	15	24
> Arts, entertainment, and recreation	798	404	100	114	96	52	24	5	2	1
> Accommodation and food services	5,846	1,698	915	1,156	1,485	458	113	17	4	-
> Other services (except public administration)	7,741	4,241	1,592	1,012	639	169	74	11	3	-
> Auxiliaries (excluding corporate, subsidiary, and regional management)	218	63	29	39	35	18	16	12	4	2
> Unclassified establishments	1,037	827	199	8	3	-	-	-	-	-

# Supporting Data

Summarized below is the number of companies and their collective employment within each industry

Industry code description	Employees	Companies
<b>Total</b>	<b>1,682,264</b>	<b>85,205</b>
> Forestry, fishing, hunting, and agriculture support	567	49
> Mining	28,705	918
> Construction	133,112	5,509
> Manufacturing	155,770	4,220
> Wholesale trade	104,810	7,338
> Transportation and warehousing	91,111	2,294
> Information	44,227	1,485
> Finance and insurance	78,819	5,453
> Professional, scientific, and technical services	128,183	11,130
> Retail trade	176,413	11,904
> Utilities	12,616	279
> Real estate and rental and leasing	38,079	4,380
> Management of companies and enterprises	86,184	1,037
> Admin, support, waste management, remediation services	178,027	4,709
> Educational services	27,391	839
> Health care and social assistance	158,091	8,021
> Arts, entertainment, and recreation	17,122	798
> Accommodation and food services	124,803	5,846
> Other services (except public administration)	79,114	7,741
> Auxiliaries (excluding corporate, subsidiary, and regional management)	17,071	218
> Unclassified establishments	2,049	1,037

# **Mayor's Taskforce on Economic Development: Latin America Investment and Trade**

June 15, 2004

# OVERVIEW

## Economic Impact of Doing Business with the Americas Region

Although this report focuses on strengthening Houston's ties with the Americas' region, it's our overall ability to attract business from around the globe that has a profound impact on Houston's economy. For example, drawing on a database of companies that covers nearly half of all employment in the eight-county metropolitan area, the Greater Houston Partnership finds that foreign-owned firms and domestic firms with significant international business activity directly or indirectly support some 880,000 jobs here, or 38 percent of all jobs in the area. The Partnership considers the finding conservative because it does not take into account international activities of firms not yet in the Partnership's database. Of the 880,000 jobs, more than 300,000 are direct employment in foreign owned firms or in domestic firms with significant international activity." Source: *ATWork*, Greater Houston Partnership, December 2001

It would be irresponsible for our community not to capitalize and nurture the very natural business, cultural and educational relationships we already hold with the Americas. Let us utilize Houston's comparative and competitive advantages to make the City a true *Portal to the Americas*. As indicated by Bill Gilmer of the Federal Reserve Bank of Dallas-Houston Branch, "commercial inroads into the Americas is one of Texas'--and especially Houston's---most promising avenues for growth."

Our competitive international infrastructure, combined with our close proximity and central location in the United States, make Texas the best U.S. entry point for the growing Americas' market. Texas is the nation's top exporter and Texas exported over \$49.1 billion in goods to Mexico, Central America, South America and the Caribbean in 2002, more than any other state and nearly 20 percent of the nation's total shipments to the region. As Texas' international business capital, Houston's status as a portal to the Americas is reflected in the breadth and depth of the city's international representation, its port, airport system and corporate trading activities.

Trade with the Americas through the Port of Houston totaled \$14.5 billion in 2002, accounting for 34.5 percent of total foreign shipments through the Port. In contrast, trade with the Americas in 1993 totaled \$6.4 billion, or 25 percent of total foreign shipments. From 1993 to 2002 air passenger traffic from Houston to the Americas grew from 1.9 million to nearly 4.3 million, representing a 130 percent increase. In 2002, air cargo between Houston and the Americas was valued at \$1,047,252,186 and totaled 18.4 million kilograms, or 17.8 percent of Houston's total air cargo trade with the world. Air cargo trade with the Americas has increased more than 54 percent between 1993 and 2002.

More than 2,100 Houston companies trade goods and services with the countries of the Americas. Over 600 Houston subsidiaries operate in the Americas and more than sixty companies representing the countries of the Americas have operations in Houston. Twenty-two countries of the Americas have representation in Houston through consular offices.

## CONTRIBUTORS' REPORTS

### A. Continental Airlines

Continental Airlines recommends that the City of Houston step up its efforts to attract regional (Americas) headquarters to the Houston area as these offices will allow business and trade activities with the region to flourish and they will produce increased travel related services between Houston and the Americas' region.

As a comparison, South Florida claims regional headquarters for the following domestic and international companies (not a complete listing) (Source: WorldCity Business [worldcityweb.com](http://worldcityweb.com) search multinationals):

America Online Latin America  
AXA RE Latin America  
AXN  
BBDO Miami  
Black & Decker  
Campbell Sales  
Canon  
Charles Schwab  
Citigroup  
Cooper Power Systems  
Cummins  
Danone Foods  
Eastman Kodak Latin America and Caribbean  
Region  
Epson  
Fox  
GE Power Systems  
General Motors  
Guerlain  
H.J. Heinz  
HBO  
Hewlett-Packard Co.  
Honeywell International Region  
Komatsu  
Lancaster-Coty  
Leo Burnett Worldwide  
Marsh Latin America Division  
McQuay  
MTV Networks Latin America  
NCR Latin America & Caribbean  
Nickelodeon  
Ogilvy & Mather  
Olympus  
Oracle  
Panasonic  
Parfums Christian Dior  
Perkins Engines  
Radisson Hotels International-Latin America  
Ricoh  
Samsung Electronics  
SchlumbergerSema  
Seagate Technology  
SEAT of Latin America  
Sikorsky Aircraft, Latin American Sales  
Sky  
Sony Ericsson  
Tyco Flow Control  
Universal Music  
Volkswagen Group  
Wendy's International  
Westvaco Latin America & Africa  
Caterpillar Americas Services Co.  
Eddie Bauer International (Americas)  
Stora Enso Interamericas  
GlobeCast North America

Mazda North America  
KLM Central & South America  
Burmah Castrol Caribbean & Central America  
ChevronTexaco Caribbean, Central America  
AXA Advisors' Florida/Caribbean Region  
Globalstar Caribbean  
Kraft Foods Caribbean Sales  
Royal Caribbean Cruises, Ltd.  
Wm. Wrigley Jr. Co Latin America Sales



## B. Greater Houston Partnership

The Greater Houston Partnership, in conjunction with the City of Houston, should continue to attract inbound business delegations from around the world and similarly draw major international events, projects, offices and organizations to the Houston region. The following are recommendations on increasing business and trade with the Americas' region:

- 1) Increase funding for those agencies with missions intended to promote Houston's image and to encourage business development throughout the Americas. Funding should be in line with the mandates of these groups.
- 2) Continue support for development of I-69 with maximum benefits coming to Houston.
- 3) Continue, on an ongoing and collaborative basis, to distribute appropriate Houston promotional materials to the top 100 Americas' company CEOs and other decision makers throughout the region.
- 4) Develop an ombudsman group to deal with issues involving the city of Houston and our international visitors.
- 5) Develop a "Houston: Crossroads to the World". The center is not intended to take the place of an existing institution in Houston rather to act as a commercial central point for business seminars, conferences, general business-to-business and to be used as an exhibition center displaying products and services from around the world. The center would also be utilized as a home for our Consular Corps and foreign trade representatives in Houston to showcase their countries trade, business, cultural and educational opportunities. Suggestions for this center include the Central Library's Julia Ideson Building.

Specifically, the Partnership requests the City's support for two major activities already currently being pursued by the Partnership:

- 1) Houston as site for the Free Trade Area of the Americas Permanent Secretariat  
Investment requested:
  - a. Marketing support – Conducting outbound business development missions to the Americas' region; attracting inbound missions from the Americas' region. Financial support as needed is requested towards this effort.
  - b. Headquarters facility – In-kind or up to \$25 million for new facility
  - c. Other tax incentives
- 2) Benefits to Houston
  - a. Minimum of 200 direct jobs
  - b. Maximum exposure domestically, throughout the world and the Americas' region
  - c. Influx of business to Houston as a result of clustering
- 3) Negotiation Round for a U.S. bilateral trade agreement with Colombia  
Investment of \$50,000 requested to host Negotiating Round will be complemented by private sector investment. The Eighth Round of Negotiations for the U.S. – Central America Free Trade Agreement in Houston cost approximately \$130,000.  
Benefits to Houston:
  - a. Domestic and international exposure
  - b. Economic benefits to travel, tourism, retail industries in Houston
  - c. Another successful international event in Houston to add to Houston's portfolio as a convention city

## C. Houston Airport System

- 1) Continue to attract air carriers to Houston
  - First and foremost, HAS is involved in air service and cargo development. HAS works closely with the Partnership on these matters. Given the substantial additional capacity coming on line (23 new gates at Terminal E, six additional at HOU, plus the huge investment in the new cargo center at IAH), it will be important to continue aggressive development of additional as well as new air services to help offset the cost and debt service attributable to these projects.
  - Related to the above is the reality that as Continental moves most of its international operations to Terminal E, the costs relatively speaking in Terminal D will rise sharply. This is true due to two principal factors: 1) The cost of Terminal D will be allocated on a passenger basis, which means that given fewer passengers in Terminal D, the cost per passenger will be up; 2) The cost of the Federal Inspection Service Center will also rise as a new project. These facts will mean the foreign flag carrier's costs will be substantially higher than those of Continental's. While HAS is attempting to lower those costs by perhaps closing some of the gates in Terminal D, some sort of subsidy may be required in the early years for flag carriers.
- 2) Reinvigorate the activities of the Houston International Initiatives by increasing the City's funding to that program. The HII contributes to building ties with the Americas' region through its efforts to bring Houston companies in contact with potential business contacts in the region. The HAS has participated in this program for a number of years taking on sole funding responsibility. Absent, HII, some of the economic development activities undertaken in the past may end.
- 3) Increase staffing for our Customs & Immigration Services at the airport facilities to make Houston the preferred port of entry.
  - The Partnership and our legislative delegation have been very helpful in ensuring the proper attention is being directed to staffing at both the TSA and Customs and Border Protection. These activities must continue until we are all sure HAS passengers are provided the highest level of service. We cannot permit a repeat of last year's CBP debacle where foreigners and citizens both faced huge delays at Terminal D.

## D. Houston Hispanic Chamber of Commerce

- 1) Increase resources. There is a lot of information available in Houston about international business. The *International Business Houston* publication provided by the Partnership helps to understand and identify some of the players, but the information which is needed should be more detailed and more focused on the business opportunities.
  - The City should create a website with links to the major players such as the Port of Houston and large companies, with their events, procurement opportunities, regulations, etc. This may encourage the international community to begin a process of sharing knowledge to increase the competitiveness of the region.
- 2) Increase coordination. Houston can improve the coordination of international resources and activities, to make sure that all players in Houston can benefit from the visitors, businesspersons and initiatives related to international issues. For example, San Antonio has a building and an agency dedicated to international issues, and anything happening in the city has the attention of every member of the community, from the Mayor, to all the chambers of commerce and all business persons.
  - The City should name an agency-office to control such information and to be the business development point of reference to anything happening to the international community. Traditionally, the protocol office and the Partnership World Trade division have helped, but we need to add other players into the equation (medium size companies, minorities, etc). And through the website and email lists we can let people know about upcoming initiatives, making sure everyone participates and benefits. For example, if the Partnership is organizing an event with the Secretary of Energy of a country, perhaps that same individual can meet with a different crowd of companies (smaller) in an event organized by another organization, and perhaps the same individual can have a meeting with key business leaders in the city. The city is then taking advantage of the dignitaries visit and letting everyone participate.
- 3) Focus on small and medium-sized businesses. Diversity and the small and medium business are a key element in the development of the Houston economy.
  - Most of the business development expansion will come from small and medium- sized firms, including first and second generation immigrants. Therefore it is important to address their needs by having constant communication with them and by providing tailored programs for their development. Most of these companies and individuals are not part of any organization or chamber. Therefore Houston needs to create innovative methods to attract and get to know them. A partnership with the Port of Houston and other business organizations could be a key element to deploy a campaign to identify and help these companies. Perhaps a selection by sector and activity, a matchmaking event, courses and seminars, funding schemes, and other activities should be created to help the international community.

## E. Port of Houston Authority

The public and private marine terminals at the Port of Houston are an economic engine for the Houston area, the county and the state. Between 1997 and 2000, the latest year for statistical research, the port's activity showed a yearly increase of nearly 14,000 new, direct and indirect jobs to the local economy.

The Port's economic impact will further benefit the area as we attract and create new business opportunities, especially in the Latin American nations.

Houston is an international city with a diverse population. The Port of Houston also enjoys that international flair. As the sixth largest in the world, moving 175 million tons a year along the Houston Ship Channel, the port of Houston is the main driver of global trade and commerce. More than 6,400 vessels and 150,000 barges transport goods through the port each year, and approximately 100 steamship lines offer service linking Houston with more than 1,000 ports in 200 countries.

### Situation analysis:

The economies of the Latin American nations are developing and becoming stronger. Specifically, the South American nations of Brazil, Argentina, Chile, Venezuela, Peru and Colombia are emerging markets for trade with the Port of Houston Authority.

PHA's belief in the South American market has always been prevalent. The Port has a trade office in Caracas, Venezuela, headed by Mr. Arturo Gamez.

Texas and the rest of the U.S. will benefit from increased trade with Latin American countries. Currently, the top commodities are imported from South and Central America through the Port of Houston include:

Refrigerated foods  
Steel  
Cement  
Wind turbine equipment  
Copper  
Project cargo

Forest products  
Coffee  
Ceramic tiles  
Mining equipment  
Garments

The Port of Houston statistics reflect the following import tonnage and financial benefit:

<b>Markets:</b>	<b>Tons</b>	<b>Dollars</b>
Mexico	28.8 million	\$5.1 billion
Central America	2.5 million	\$8 million
South America	16.7 million	\$6.6 billion

Clearly, Latin America's status as an expanding market is derived from this wide ranging list of commodities.

#### **On-going projects:**

Tapping the expertise of the Port Authority staff, the Port of Houston Authority International Corporation provides assistance to port authorities, terminal operators, engineering firms and construction companies worldwide.

POHAIC's goal is to help these organizations in their pursuit of business opportunities, port development projects and economic development. In 2003, POHAIC signed a business contract that will ultimately help the Port of Guanta, Venezuela become a world-class marine cargo shipping facility modeled after the Port of Houston.

The POHAIC team is expected to conduct a comprehensive analysis of market demand and movements at Guanta, which can help engineers determine the technical resources needed for planning and developing new facilities. The team will also identify potential commercial capital resources and develop schedules of tariffs, charges and fees for facility usage, services, cargo handling and other activities at the port.

The environmental component of the team's study will include a review of short- and long-term impacts from port development and ways to mitigate to ensure compliance with regulations imposed by local and central Venezuelan government agencies as well as potential funding agencies such as the World Bank.

By securing this contract, the POAHIC team proves that the current market has created oceans of opportunities for world port development and partnerships. The ongoing privatization of public ports, as well as expansion and modernization by government-operated ports, is creating a demand for specialized expertise in port development and management.

#### **Action items for Mayor Bill White:**

- Mayor's staff can continue supporting the Consular Corps and the Greater Houston Partnership's economic development programs.
- Mayor's office can help coordinate trade missions to Latin America at the highest level to showcase all the amenities that Houston has to offer – not only a world-class port but also exemplary medical facilities and educational institutions – to develop stronger professional relationships.
- Houston's International Initiatives can support PHA's efforts in trade development by providing trade statistics and information on PHA capabilities to countries with ports.
- Support Houston's bid as headquarters for the Free Trade Areas of the Americas. FTAA is the single most important multilateral undertaking, and a principle for free trade in the Western Hemisphere.
- PHA vice chairman Kase Lawal and Commissioner Janiece Longoria are intelligent and actively involved leaders who represent the city of Houston. Both of these commissioners serve on our international business development task force, which is designed to create economic development opportunities in underdeveloped markets. Commissioners Lawal and Longoria are dedicated to all aspects of the port's growth and development. The mayor can assist the PHA by continuing to support these two strong commissioners.

#### **F. Texas Medical Center**

The City of Houston can take several steps to enhance international trade by taking action in the following areas:

##### **1) Medical Visa**

- Since 9/11/01 the number of international patients coming to Texas Medical Center institutions has declined substantially. Typically, these foreign patients represent only 3% of our patient base but 9% of our revenue. We have been working with the State Department and have offered suggestions on ways to address this problem without increasing the risk to homeland security. Although we have garnered support among our Congressional delegation and key members of the Senate to consider a legislative solution, Texas Medical Center would appreciate any assistance the City of Houston can provide on this issue.

- 2) The City of Houston needs to increase its focus on Latin America. Houston is geographically the "Gateway to the U.S." from Latin America. There are several steps we should take to capitalize on our natural connection to the Southern Hemisphere:
  - Better coordination with Continental Airlines to promote interaction with Latin America. For example, the City of Miami has long partnered with its major airline to increase traffic from Latin America to promote tourism, business and health care. Houston has the same opportunity and should take more advantage of it.
  - More attention to health care and research on trade missions. We believe Houston has missed opportunities during trade missions to promote connections in the areas of health care and research. We suggest that the City plan to include meetings with key health care leaders and scientists on all trade missions, particularly in Latin America where several of our institutions already have established relationships. This presence will improve efforts bring health related business to Houston.
- 3) Focus on tourists as well as conventions.
  - To improve the experience of all visitors, the City could better coordinate with local hotels and attractions. For example, the South Main area is an extraordinary collection of activity centers that contribute to Houston's unique character. Texas Medical Center would especially like to maximize the quality of the time that patients spend in Houston outside of the doctor's office. In the South Main area alone, visitors can access Hermann Park, a world-class stadium, 16 museums and numerous restaurants and shopping venues.
- 4) Marketing TMC with Houston
  - While Texas Medical Center is not looking to become a tourist destination, the City could improve its business-to-business marketing by promoting the research and education as well as health care that takes place in the TMC. The City should include efforts to recruit and retain highly qualified staff, and in particular, highlight the Nurse Magnet focus in Texas Medical Center. Education/publicity about unique professional opportunities at several facilities within the Texas Medical Center would be newsworthy for Houston and aid in recruitment and retention strategies of all health care professionals. Additionally it would highlight the dedication to providing high-quality health care to patients.

## CONCLUSIONS

It is apparent that Houston, with its economically priced and strategically placed trade friendly infrastructure, is poised to continue to benefit from international trade. It is equally apparent that Latin America offers the greatest opportunities for growth.

Since no major barriers to trade are in place for our business community to overcome, improvements come from the fringe and are described in the text of this report. In addition to the City government's focus on how it can add to the realization of these stated improvements, it is noteworthy to mention the importance that the Mayor's personal participation in the promotion and highlighting of specific breakthrough developments has. The Mayor's presence, whether here or abroad, adds invaluable emphasis to the partnership that exists between business and government in the achievement of our communities' successes.

# **ATTACHMENT A**

## **List of Participants**

**Lee W. Hogan**, Chairman  
**Joseph Avila** – McKinsey & Company  
**Bob Beauchamp** – BMC Software  
**Rod Canion** – Questia Media  
**Lupe Fraga** – Tejas Office Products  
**Paul Frison** – HTC  
**Harry Gee** – Harry Gee & Associates  
**Alex Gruzon** – HP  
**Joe Hafner** – Riviana Foods  
**Dr. Bernard Harris** – Vesalius Ventures  
**Steve Latham** – Spur Digital  
**Sonceria Messiah Jiles** – Houston Defender  
**Dr. Chris Kersey** – Cogene Ventures  
**Richard Lapin** – COH  
**Steve Miller** – SLM Discovery Ventures  
**Arshad Matin** – Bindview  
**Edward Monto** –  
**Jacqueline Northcut-Waugh** – BioHouston  
**Doug Pushard** – BMC  
**Jim Reinhartsen** – Bay Area Houston  
**Matt Simmons** – Simmons & Company  
**Bob Stearns** – Sternhill Partners  
**Marty Sutter** – Essex Woodlands Health Ventures  
**Stephen Trauber** – UBS  
**Umesh Verma** – Blue Lance  
**Massey Villarreal** – Precision Task Group  
**Zeynep Young** – McKinsey & Company

## ATTACHMENT B

### PROJECTED COSTS OF RECOMMENDATIONS

<u>Recommendation</u>	<u>City of Houston</u>	<u>Private Sector</u>
Create Eco Dev Dept.	\$750,000	
Pension Fund of Funds	\$300,000	
Energy Marketing Plan		\$200,000
BioTech Marketing Plan		\$200,000
Existing Business Programs		\$100,000
Aerospace Marketing		\$150,000
Aerospace Ellington Facility	Capital Budget	
City Enterprise Fund	\$2,000,000-4,000,000	
University Chairs		\$ 5,000,000

# **ATTACHMENT C**

## **DIRECTOR OF ECONOMIC DEVELOPMENT POSITION DESCRIPTION**

### **Responsibilities:**

- Administer City of Houston's (COH) economic development financial incentive program
- Coordinate COH's efforts with relocation and expansion prospects
- Coordinate COH's contracts with private sector economic development organizations
- Administer COH's "Grant Facilitation" office
- Administer COH's programs to support small and emerging businesses
- Oversee operation of "Houston International Initiative" program
- Provide Input to Economic Development Strategic Planning Council
- Coordinate other Economic Development Activities for COH

### **Educational Requirements:**

- BA/BS with graduate degree in business or public policy desired

### **Background and Qualifications:**

- The candidate must have significant experience in field of federal or state grants. This experience could come from positions in local, state or federal agencies, or through experience in an entity receiving such grants. Specific experience in "economic development" grants is preferred.
- The candidate must have administrative experience in preparing and administering annual budgets greater than \$1 million.
- The candidate should have knowledge of the various mechanisms used to provide financial incentives within an economic development program.
- The candidate should have experience in designing and implementing proactive marketing programs for economic development.
- The candidate should have superior communication skills to relate to elected officials, other governmental agencies and the private sector.
- The candidate should demonstrate the ability to create meaningful benchmarks to continually assess the effectiveness of economic development programs undertaken by the COH.
- The candidate must have the ability to deal appropriately with delicate and confidential information, and have an unquestioned reputation for honesty and integrity.